User Manual

Pioneer AVIC-S2

Navigation software for AVIC-S2

UK English

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Before using your navigation system, be sure to read and fully understand the information provided in the "Important Information for the User" document. Read the entire User Manual before operating this navigation system.

Table of Contents

1 Warnings and safety information 8
2 General information 9
3 Operating AVIC-S2 (Controls) 10
3.1 Hardware buttons 10
3.1.1 Power on/off button 10
3.1.2 Menu button 10
3.1.3 Map button 11
3.1.4 Volume setting scroll wheel 11
3.2 Screen buttons and controls 11
3.2.1 List selectors 11
3.2.2 Sliders 12
3.2.3 Switches 12
3.2.4 Switches in the Display menu 12
3.2.5 Virtual keyboards 13
3.2.5.1 ABC-type keyboards 13
3.2.5.2 QWERTY-type keyboards 14
3.2.5.3 The numeric keyboard 14
4 Discovering the program through the screens 15
4.1 The map 15
4.1.1 2D and 3D map views 15
4.1.2 Zoom levels 16
4.1.3 Daylight and night colour schemes 16
4.1.4 Streets and roads 17
4.1.5 Other objects 18
4.1.6 Current position and Lock-on-Road 18
4.1.7 Selected map point, also known as the Cursor 19
4.1.8 Marked map points (Pin) 19
4.1.9 Visible POIs (Points of Interest) 20
4.1.10 Road safety cameras 21
4.1.11 Elements of the Active Route 21
4.1.11.1 The start point, via points and the destination 21
4.1.11.2 Animated turn guidance 21
4.1.11.3 The active leg of the route 22
4.1.11.4 Inactive legs of the route 22
4.1.11.5 Roads in the route excluded by your preferences 23
4.2 GPS Data screen 23
4.2.1 GPS data displayed 23
4.2.2 GPS connection indicator 24
4.2.3 GPS data quality indicator 24
4.2.4 Time synchronization 24

4.3 Screens with map 25
4.3.1 Turn preview (No. 1) 27
4.3.2 Zoom in and out (No. 2 & 3) 27
4.3.3 Tilt up and down (No. 4 & 5) 27
4.3.4 Back to navigation - lock to GPS position and heading (No. 6) 28
4.3.5 Cursor (No. 7) 29
4.3.6 Map scale (No. 8) 29
4.3.7 Navi button - Menu (No. 9) 29
4.3.8 Map orientation and Overview (No. 10) 29
4.3.9 GPS position quality (No. 11) 30
4.3.10 Battery status (No. 12) 31
4.3.11 Sound muting (No. 13) 31
4.3.12 Track Log recording/playback indicator (No. 14) 31
4.3.13 Cursor menu (No. 15) 32
4.3.14 Current street (No. 16) 33
4.3.15 Travel and Route data (No. 17) 33
4.3.16 Distance to next turn (No. 18) 34
4.3.17 Next street / Next manoeuvre (No. 19) 34
4.3.18 Approaching next turn (No. 20) 34
4.3.19 Mode button (No. 21) 34
4.4 Route Information screen 35
4.4.1 Route data displayed (for destination and via points) 35
4.4.1.1 Route line 35
4.4.1.2 Distance Left 36
4.4.1.3 Method 36
4.4.1.4 Time Left 36
4.4.1.5 Estimated Arrival 36
4.4.1.6 Destination / Via point 36
4.4.2 Warning icons 36
4.4.3 Fit to screen 38
4.4.4 Parameters 38
4.5 Menu 38
4.5.1 Destination tab 38
4.5.2 Display tab 38
4.5.2.1 3D/2D Map 39
4.5.2.2 Zoom & Tilt (switch) 39
4.5.2.3 Day/Night (switch) 39
4.5.2.4 Manage POI (Points of Interest) 40
4.5.2.5 Popup Information (switch) 43
4.5.2.6 Manage Track Logs 43
4.5.3 Route tab 45
4.5.3.1 Recalculate 45
4.5.3.2 Delete 47
4.5.3.3 Itinerary 47
4.5.3.4 Fly Over 48
4.5.3.5 Edit 49
4.5.3.6 Info 49
4.5.4 Map Search button 50
4.5.5 Settings button 50
4.6 TMC (Traffic Message Channel) 50

4.6.1 List of TMC messages 51
4.6.2 TMC control centre 51
4.6.2.1 Selected FM radio station 51
4.6.2.2 Exclude selected station 51
4.6.2.3 Show excluded stations 52
4.6.2.4 Sorts events by distance / type 52
4.6.2.5 Use traffic information 52
4.6.2.6 Recalculate to avoid traffic 52
4.7 Road safety cameras 52
4.7.1 Camera types 53
4.7.1.1 Fixed cameras 53
4.7.1.2 Mobile cameras 53
4.7.1.3 Built-in cameras 54
4.7.1.4 Section control cameras 54
4.7.1.5 Red light cameras 54
4.7.2 Controlled traffic direction 55
4.7.3 Speed limit checked 55
4.7.4 Add a new camera or edit an existing one 55
5 Settings 57
5.1 Safety settings 57
5.1.1 Safety Mode 57
5.1.2 Warn When Speeding 58
5.1.2.1 Speeding tolerance 58
5.1.2.2 Alternative speed limit 58
5.1.2.3 Alternative speeding tolerance 59
5.1.3 Enable Safety Cameras 59
5.1.3.1 Audible Warning 59
5.1.3.2 Visible Warning 60
5.2 Map Colour settings 60
5.2.1 Daylight / Night colour profile 60
5.2.2 Automatic Night Colours 61
5.3 Sound settings 61
5.3.1 Click Sounds switch 61
5.3.2 Dynamic Volume 61
5.3.3 Attention Tone 62
5.4 Route parameter settings 62
5.4.1 Route 62
5.4.1.1 Short 62
5.4.1.2 Fast 62
5.4.1.3 Economical 62
5.4.2 Vehicle 63
5.4.3 Road types to include/exclude 63
5.4.3.1 Unpaved Roads 63
5.4.3.2 Freeways 63
5.4.3.3 Ferries 63
5.4.3.4 U-turns 63
5.4.3.5 Permit needed 64
5.4.3.6 Toll Roads 64
5.4.4 Cross-border planning 64
5.5 Language 64

5.5.1 Program language 64
5.5.2 Voice language 64
5.6 Advanced settings 65
5.6.1 Regional settings 65
5.6.1.1 Units 65
5.6.1.2 Coordinate display format 65
5.6.1.3 Set Date & Time Format 65
5.6.2 Displayed information 66
5.6.3 Smart Zoom 66
5.6.3.1 Smart Zoom switch 66
5.6.3.2 Enable Overview mode 67
5.6.3.3 Keep position on road (Lock-on-Road) 67
5.6.4 Set Favourite Destinations 67
5.6.5 User data management 68
5.6.5.1 Backup Data 68
5.6.5.2 Restore Data 68
5.6.5.3 Clear Data 68
5.6.5.4 Reset Advanced Settings 69
5.6.6 About screen 69
6 Find your destination 70
6.1 Selection by tapping the map 70
6.2 Using the Destination menu 70
6.2.1 Find an Address, Street, Intersection or City 71
6.2.1.1 Selecting the city, state and country to search in 71
6.2.1.2 Selecting a street or the centre of the settlement 74
6.2.1.3 Selecting a house number or the midpoint of the street 75
6.2.1.4 How to select an intersection instead of a house number 75
6.2.2 Find in History 76
6.2.3 Find Coordinates 76
6.2.4 Find a POI 77
6.2.5 Find one of the Favourites (Home/Office) 79
7 Troubleshooting guide 80
8 Glossary 82

1 Warnings and safety information

⚠The features of this Navigation System are intended solely as an aid to you. It is not a substitute for your attentiveness, judgement, and care when driving or when otherwise operating this Navigation System.

Do not operate this Navigation System if doing so in any way will divert your attention from the safe operation of your vehicle or other mode of transportation. Only a passenger should program/operate this Navigation System while a vehicle is moving. A driver should use voice guidance (when available) or glance at the screen only when it is necessary and safe to do so. If prolonged viewing of the screen or programming/operation of the unit is required by the driver, do so only when the vehicle is parked in a safe location. Always observe safe driving/operating rules and follow all existing traffic regulations.

This Navigation System may in certain circumstances display inaccurate or incomplete information regarding your position, the distance of the objects shown on the screen, and compass directions. In addition, the system has certain limitations, including the inability to identify certain one-way streets, temporary traffic restrictions, road and weather conditions, traffic flow, and potentially unsafe driving areas. Recent changes to streets/highways also may not be reflected in this database. Please exercise your own careful judgement in the light of actual conditions and traffic laws/regulations.

Before using your navigation system, be sure to read and fully understand the information provided in the "Important Information for the User" document. Read the entire User Manual before operating this navigation system.

2 General information

AVIC-S2 is a navigation system optimised for in-car use. It provides door-to-door navigation for both single and multi-point routes using adaptable route parameters. AVIC-S2 is capable of planning routes throughout the whole installed map set. Unlike some other products, AVIC-S2 does not require that you change maps or switch to a poorly detailed general map to navigate between map segments or countries. You always have complete freedom to go wherever you wish. Just select your destination and go.

You do not need a stylus to use AVIC-S2. All screen buttons and controls are designed so that you can operate them with your fingertips.

You can access all functions of the program by using hardware and screen buttons. With the help of these buttons you can travel through all the screens of the program. Most of the screens (especially menu functions and settings) can be accessed from several other screens, minimising the number of actions needed to reach the desired function.

When using AVIC-S2, you do not need to ‘double tap’ or ‘tap & hold’ the touch screen as these functions cannot be used reliably in a moving vehicle. A single tap triggers most of the screen controls. The only exceptions are ‘drag & drop’ for moving the map, scaling it in Map mode (Page 29), or some Music Player functions.

Most of the screens have a Return button in the top left corner. This arrow returns to the previous screen or directly to one of the map screens.

Settings screens also have a Help button in the top right corner. This will show a detailed description of the current settings screen.

3 Operating AVIC-S2 (Controls)

AVIC-S2 is designed for easy operation. All controls are operable by fingertips. Wherever possible, pushbuttons and lists are provided to make accessing functions or changing settings as easy as possible.

3.1 Hardware buttons

There are only a few hardware buttons on your AVIC-S2.

The majority of the AVIC-S2 functions can be accessed using the touch screen. The hardware buttons are the following:

3.1.1 Power on/off button

Hold this button for 3 seconds to turn the power of the AVIC-S2 on or off any time.

If the device power is turned off while the navigation software is running, when you turn the device back on, the program will continue the navigation as soon as the built-in GPS determines the location again.

While the device is switched off, the GPS will not work, no position will be calculated, track log will not be saved, and navigation will stop.

3.1.2 Menu button

Use this button to pause navigation, and return to the startup menu of your AVIC-S2 to run Bluetooth application.

While using other applications, the GPS will continue providing the position, the track log will be continuously saved, and navigation will not stop.

When you return to the navigation function, AVIC-S2 will continue the navigation as soon as the built-in GPS determines the location again.

3.1.3 Map button

To give easy access to the most important data screens during navigation, a hardware button is reserved for toggling between the Route Information screen and the Detailed Instructions page of the Itinerary. Alternatively, these screens can be accessed from the Route menu by the Info (Page 49) and Itinerary (Page 47) buttons respectively.

As a secondary function press and hold this button for 3 seconds to toggle between the Cockpit and the Map screens (Page 25).

3.1.4 Volume setting scroll wheel

As in other applications of your AVIC-S2, this scroll wheel will adjust the master volume of AVIC-S2. Turn this wheel to make navigation and key sounds louder or to turn them down. When you use this control, the new master volume level will be displayed in the centre of the screen for a few seconds.

3.2 Screen buttons and controls

The primary input for the AVIC-S2 is the touch screen. If you continue to read this manual, you will realise that most parts of the screen are not only used to display information but also to initiate functions by tapping. Below you will find a list of the most frequently used controls in the program.

3.2.1 List selectors

Some of the settings can be chosen from a short list of possible values. The current value is shown in a horizontal strip with arrows at both ends.

The arrows are buttons. Tap to move left in the list or tap to move right. You do not need to confirm your selection. As soon as you leave the screen, the selected value becomes effective.

3.2.2 Sliders

When a feature has several different unnamed (numeric) values, AVIC-S2 will show sliders that look like analogue gauge to set the desired value.

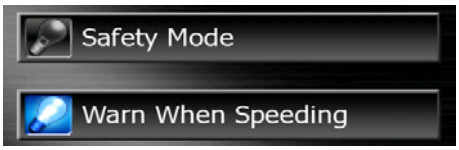
If the value limits are not displayed at the ends of the slider, the leftmost position means the minimum value, while the rightmost position represents the maximum value.

With most sliders you can check the current value on the left.

This control can be operated in two ways. Either drag the handle to move the slider to its new position, or tap the slider where you want the handle to appear (the thumb jumps there immediately). As with the list selectors, there is no need to confirm your selection. As soon as you leave the screen, the selected value becomes effective.

3.2.3 Switches

When a function can only have two values (mainly Enabled and Disabled), a switch is used. Unlike with list selectors, the horizontal line contains the name of the function and not the actual status. There is a lamp on the left to show whether the function is active or not.



When the lamp is dark , the function is not selected. When it is lit , the function is enabled. The whole strip works as a button. Tap anywhere to toggle between the enabled and disabled status.

3.2.4 Switches in the Display menu

The switches of the Display menu (Page 38) behave as normal switches but they look different in order to fit in with the other menu buttons.

Tap the button to toggle between the enabled and disabled states.

3.2.5 Virtual keyboards

AVIC-S2 is designed in a way that you only need to enter letters or numbers when it is inevitable. In these cases a full screen keyboard pops up that can easily be operated with your fingertips. You can choose between a separate ABC and numeric keypad, or a set of QWERTY-type keyboards that contain both letters and numbers. AVIC-S2 will remember your last choice and offer it the next time you need to enter data.

The alphabetic keyboards in AVIC-S2 do not contain special characters, because you do not need to enter accents when searching for a destination. Type only the base letters (the letter most similar to the accented one) and AVIC-S2 will search for all their combinations in the database (e.g. for the French street 'Cité Bergère ' you only need to type 'Cite Bergere', and the rest is done by the program).

When you type in POI or track log names, AVIC-S2 will automatically turn all initials into capitals to create names that look pleasant.

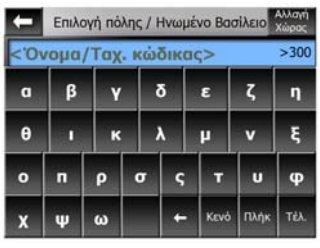
3.2.5.1 ABC-type keyboards

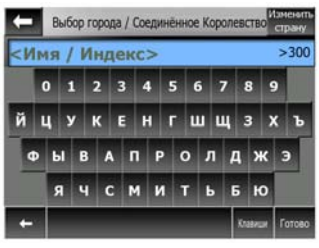
These keyboards contain only letters (Latin, Greek or Cyrillic). If you wish to enter numbers, you need to tap the Keys (Keys) button to switch to the numeric keyboard.

Use Backspace (arrow pointing left) to delete the last letter you have entered if you have made a mistake, tap Space to enter more words, and hit Done to finish entering the text.

This type of keyboard has large, finger-friendly buttons.

Note: If you have chosen a program language that uses Latin letters, only the ABC keyboard appears. If you choose the Greek language, an additional keyboard appears with Greek letters. Similarly Cyrillic letters are available when Russian is chosen in Setup / Languages (Page 64).





If you are used to computer keyboards, you may consider trying one of the QWERTY-type keypads.

3.2.5.2 QWERTY-type keyboards

QWERTY-type keyboards have both letters and numbers on them. Their layout is the same as of the standard QWERTY, QWERTZ (German) and AZERTY (French) keyboards. To switch to your desired QWERTY-type keyboard, press the Keys button repeatedly until the appropriate keyboard appears.

The special keys described in the previous section are also available here.

3.2.5.3 The numeric keyboard

The numeric keyboard only contains numbers, on huge buttons. The special keys you find on the other keyboards (except Space) are available here as well.

Although QWERTY-type keyboards also contain number keys, when entering a house number, the program offers the more convenient numeric keypad.

4 Discovering the program through the screens

The best way to learn the different functions of the AVIC-S2 is to explore each screen in detail, and to find out how to move from one to another. Read this chapter for a guided tour.

4.1 The map

The most important and most frequently used screens of AVIC-S2 are the screens with the map (Map and Cockpit screens). The elements of the map are described here. For the controls and special functions of the map screen see Page 25.

The current version of AVIC-S2 is intended only for in-vehicle navigation. That is why maps in AVIC-S2 look similar to paper roadmaps (when using daytime colours and 2D map mode). However, AVIC-S2 provides much more than regular paper maps can. The look and the contents can be changed.

4.1.1 2D and 3D map views

Besides the classical top down view of the map (called 2D mode), you have the ability to tilt the map to have a perspective view (3D mode) that gives a view similar to that seen through the windscreen with the ability to see far ahead.

It is easy to change between 2D and 3D modes. You have two options. You can use the Tilt up and down buttons (Page 27) to tilt the map seamlessly between 2D and all 3D angles, or you can use the switch in the Display menu (Page 39) to quickly switch between the two modes.

Note: You may find that 2D mode is more useful in North-up Map mode when looking for a certain part of the map or an object to select as destination. On the other hand, 3D mode in Track-up Cockpit mode with Smart Zoom is ideal for navigation. The description of these modes will come later in this manual.

Note: 3D view is only useful for navigation. As you zoom out, the view angle will automatically be raised, until eventually it becomes 2D view. When you zoom back in, 3D view will gradually return.

4.1.2 Zoom levels

AVIC-S2 uses high quality vector maps that let you see the map at various zoom levels, always with optimised content. Street names and other text objects are always displayed with the same font size, never upside down, and you only see as many streets and objects as needed to find your way around the map. Zoom in and out to see how the map changes in either the 2D or 3D view.

Changing the scale of the map is very easy. Use the zoom icons (Page 27) on the map screens.

Note: If you need to zoom out temporarily to locate your position on the map, use the Overview mode instead of zooming out/in. The Overview mode is a 2D North-up view that can be activated by tapping the compass button on the right (Page 29).

Note: AVIC-S2 has a Smart Zoom function for navigation that automatically rotates, scales and tilts the map in 3D map mode to always give you the optimal view in your current situation. When approaching a turn, it will zoom in and raise the view angle to let you recognise your manoeuvre at the next junction. If the next turn is at a distance, it will zoom out and lower the view angle to flat in order to let you see the road in front of you.

4.1.3 Daylight and night colour schemes

The different colour schemes let you adjust AVIC-S2 to the brightness of the environment. Use the daylight and night colour schemes accordingly. Daylight colours are similar to paper roadmaps, while the night colour schemes use dark tints for large objects to keep the average brightness of the screen low, with carefully

selected colours to still keep you informed about all the necessary information on the screen.

You can change between day and night views manually in the Display Menu (Page 39) or let AVIC-S2 do it automatically (Page 61) for you.

Note: The automatic day/night mode is based upon the current date and GPS position by which AVIC-S2 calculates the exact sunrise and sunset times on the particular day at the particular location. Using that information AVIC-S2 can automatically switch between the colour schemes a few minutes before sunrise, when the sky has already turned bright, and a few minutes after sunset before it gets dark.

Tip: There are several daytime and night colour schemes included with AVIC-S2. To select the one that suits your needs the best, make your selection in Settings (Page 60).

Note: The colours mentioned and screenshots included in this manual refer to the default daytime and night colour schemes. They may not look the same in the schemes you have chosen.

Tip: If you use AVIC-S2 after sunrise or before sunset, look for the sun in the sky in the map background using a flat 3D view. It is displayed at its actual position to give you another way to orientate.

4.1.4 Streets and roads

The similarity of AVIC-S2 to paper roadmaps is also convenient when it comes to streets, the most important elements of the map concerning navigation. AVIC-S2 uses similar colour codes to those you are accustomed to, and the width of the

streets also refers to their importance, so it will not be difficult to tell a highway from a small street.

Streets and roads have names or numbers for identification. Of course, this information can be displayed on the map. AVIC-S2 uses two different ways to show street labels. The conventional way is the same as a roadmap – it displays the name of the street aligned with the street. The alternative is a kind of virtual signpost stuck into the street itself.

You do not need to choose between the two modes. AVIC-S2 will use the one best for the current tilt and zoom level. Zoom in to have only a few streets on the map, and start tilting up and down to see how AVIC-S2 switches between the two modes in an instant.

Note: The automatic switching is on even when using Smart Zoom.

4.1.5 Other objects

To help orientate you, the map also contains land usage information that help you recognise your location on the map. These are surface-waters, large buildings, forests, etc.

4.1.6 Current position and Lock-on-Road

When your GPS position is available, a red arrow shows your location on the map.

The direction of the arrow represents your direction. The arrow size and orientation is rotated with the zoom and tilt levels to always fit appropriately on the map.

AVIC-S2 has a built-in Lock-on-Road feature that always puts the position arrow on the road, on the axis of the street in case of one-way streets, or on the side of the road where you drive (e.g. on the right in the United States, and on the left in the U.K.) on two-way roads.

Note: The Lock-on-Road feature can be turned off in Advanced settings (Page 67).

When the GPS position is lost, the arrow turns gray, but the indicator continues on the recommended route for a short period of time with the speed last detected before the GPS position was lost. This way short tunnels can be crossed without losing the position.

4.1.7 Selected map point, also known as the Cursor

If you tap the map somewhere or select a specific item in Destination, it will become the selected point on the map, marked with a small red dot and permanently radiating red circles to make it conspicuous at all zoom levels, even when it is in the background of a 3D map view. You can use this point as starting point, via point, or destination of your route, you can search for a POI near to it, or save it as a POI. The cursor, when visible, is also the reference point for map scaling.

Note: When your GPS position is available, and Lock-to-Position (Page 28) is active, the cursor is the current GPS position, the red arrow. When you select another point by tapping the map, or using the Destination menu (Page 70), the new Cursor is shown on the display with the red dot and the radiating red circles.

4.1.8 Marked map points (Pin)

The Cursor can be marked with a Pin. Pins are shown as being stuck in the map. A Pin is visible at all zoom levels and remains in its position until you unpin it.

History
Unnamed road, Near Harrow
[N 51.57961° x W 0.33358°]
Unnamed road, Near London, North Woolwich
[N 51.50327° x E 0.05173°]
328 Finchley Road, London, Hampstead NW6 1
[N 51.55704° x W 0.19537°]
King's College London
Finchley Road, Camden Town
2 Camelot Close, Chelmsford CM1 4
[N 51.74875° x E 0.45876°]
Clear History
1/4

The colour of the Pin is automatically selected by AVIC-S2. Different colours help you identify a Pin in the History list (Page 76) later. There they are shown together with their address and GPS Coordinates.

Tip: A quick way to tell the coordinates of a location you found on the map is to Pin it, and then look for the coordinates in the History list (Page 76).This way you also save the coordinates with the Pin for later reference. If you do not need the coordinates later, just select the point and start Find Coordinates (Page 76).

4.1.9 Visible POIs (Points of Interest)

AVIC-S2 comes with thousands of built-in POIs, and you can create your own POI database as well. Having all of them displayed on the map would make the map too crowded. To avoid this, AVIC-S2 lets you select which POIs to show and which ones to hide (Page 40) using their categories and subcategories.

POIs are represented by icons on the map. For a built-in POI it is the icon of the subcategory of the actual POI. For POIs you create, it is the icon you had chosen when you created the POI (it can be changed later).

These icons are large enough to recognise the symbol, and semi-transparent so as not to cover the streets and junctions behind them.

When the map is zoomed out, the icons are not shown. As you zoom in, small dots appear at the locations of visible POIs. Zooming in further makes the full icons appear.

If two points are too close to each other so that icons overlap, a multi-POI icon is shown instead of individual ones. Zoom in more to see them separately. (Should the two POIs have the same icon, this icon will be displayed instead of the multi-POI icon.)

Tip: Tap the map on or near a POI item to see the list of the names of the nearest POIs in a popup list, if it is enabled (Page 43). To see the details of a particular POI in the list, tap the blue 'i' icon on the right. If you have too may POIs nearby, this list may not be complete. In the Cursor menu (Page 32) there is a button called POI that leads you to the screen of all nearby POI items. There you can open them one by one to see their details, and select any of them as a route point.

4.1.10 Road safety cameras

Road safety cameras, such as speed cameras and red light cameras are special POI types in AVIC-S2. They are described in detail here: Page 52.

4.1.11 Elements of the Active Route

AVIC-S2 uses a multi-destination routing system in which you have a start point (your current location if GPS position is available), a destination, the line of the active leg of the route, and optionally via points and inactive legs. They are all shown on the map.

4.1.11.1 The start point, via points and the destination

These points are represented by flags.

4.1.11.2 Animated turn guidance

Animated arrows represent all route events other than the above-mentioned special points. These arrows show the direction in which you need to continue your journey.

4.1.11.3 The active leg of the route

The active leg is the section of the route you are currently driving. If you have not added any Via points, the whole route will be the active leg. When Via points are present, the active leg is the part leading from your location to the next via point.

The active section is displayed in green. It is always the most conspicuous part of the map even when in the background of a 3D map view.

The line of the route is displayed on the driving side of the road for two-way and on the axis in case of one-way streets. When the map is zoomed in and the line is wide enough, small arrows show the direction of the route. This can be useful if you preview the route before starting the journey or when entering a complex junction.

4.1.11.4 Inactive legs of the route

Future sections of a route are inactive. They are shown on the map in light blue. An inactive route section becomes active as soon as you reach its starting Via point.

4.1.11.5 Roads in the route excluded by your preferences

Although you can choose whether to include or avoid some road types in Route parameter settings (Page 63), sometimes they are impossible to avoid near the starting point, via points or the destination.

If so, AVIC-S2 will display those segments of the route with an alternate colour.

4.2 GPS Data screen

Tap the small satellite icon on the Map or Cockpit screen to open this window.

The GPS Data screen is a collection of information received from the GPS device and it also serves as the entry point to the Time Sync screen.

4.2.1 GPS data displayed

The virtual sky on the left represents the currently visible part of the sky above you, with your position as the centre. The satellites are shown at their current positions. The GPS receives data from both the green and grey satellites. Signals from the grey satellites are only received, while green ones are used by the GPS to calculate your current location. On the right you can see the satellite signal strength bars. Dark bars are for the grey and orange bars are for the green satellites. To identify satellites use their numbers also shown in the virtual sky. The more satellites your GPS tracks (the green ones), the better your calculated position will be.

Additional pieces of information on this screen are: current position in latitude/longitude format, elevation, speed, date, time and calculated accuracy.

Note: Accuracy can be affected by several factors the GPS cannot take into account. Use this accuracy information only as estimation.

There are two icons on the left to show the status of the GPS connection and the quality of reception.

4.2.2 GPS connection indicator

In the middle to the left there is a lamp similar to the ones used for switches. This one has more colours and represents more values:

- a fast blinking green lamp means that there is communication with the GPS and data is being received,
- other colours may not appear with a built-in GPS. Should any of these appear, this means a faulty operation of your device.

4.2.3 GPS data quality indicator

In the top left corner there is a satellite dish to show the quality of the GPS position. Different colours represent different signal quality:

- black with a red cross means there is no connection with the GPS device.
- red means the GPS is connected but no GPS position is available,
- yellow means 2D reception. A GPS position has been acquired, AVIC-S2 is ready for navigation, but the GPS is using enough satellites for calculating the horizontal position only. Elevation data is not provided, and the position error may be significant.
- green means 3D reception. The GPS receiver has enough satellites to calculate altitude. Position is generally correct (yet it can still be inaccurate due to different environmental factors). AVIC-S2 is ready for navigation.

4.2.4 Time synchronization

In the top right corner of the screen you have another button that leads to a new screen where you can synchronize the clock of your AVIC-S2 to the very accurate time provided by the connected GPS.

Turn on the Auto Correction switch to let AVIC-S2 frequently check and correct the internal clock with the GPS time.

Below that button you will see the current values of the GPS and the device clocks. You can check here whether any correction is needed. Tap the button to manually synchronize the time.

Below the AVIC-S2 time you have hour and minute controls to manually correct the time with or without a valid GPS time.

4.3 Screens with map

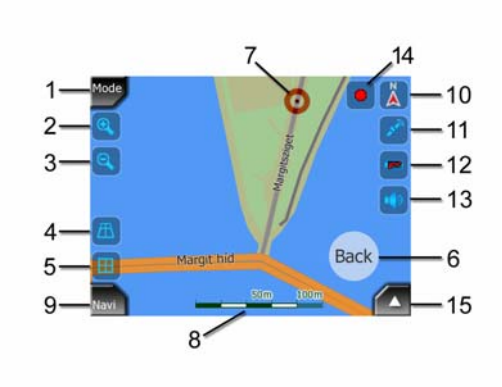
Having explained the contents of the map, the description of the other parts of the map screens follows. There are two map screens: the Map search screen and the Cockpit screen. The way they show the map is the same but their look and controls are optimised for different purposes.

The Map screen is to be used mainly without a GPS, to browse the map, create user POI items, or to plan your route based on map points. The Map search screen is designed to give you the maximum map area. This screen is usually used in 2D North-up mode.

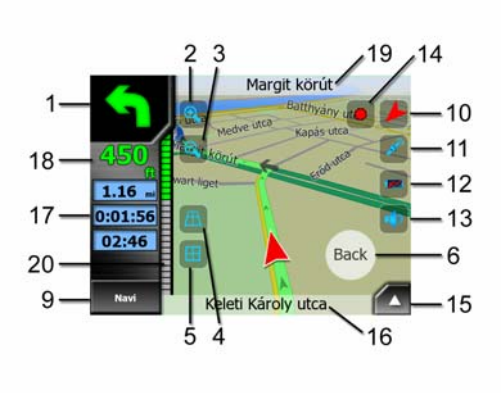
The Cockpit screen is for driving purposes. Besides showing the map, it contains some additional travel information if you do not have a route entered (speed, current street your are driving in, speed limit for the current street), and some more route data if you are navigating (e.g. next street in your route, distance to travel, type of the next route event). This screen is typically used in 3D Track-up mode.

There are several controls that function in a similar fashion on the two screens. They are described on the following pages.

Map search screen contents:



Cockpit screen contents:



No.	Display	Control
1	(Cockpit only) Turn preview	Opens Route menu
2	n/a	Zooms in (optional)
3	n/a	Zooms out (optional)
4	n/a	Tilts down (optional)
5	n/a	Tilts up (optional)
6	Indicates that Lock to GPS position and heading is inactive	Re-enables Lock-to-Position / Smart Zoom
7	Selected map point (Cursor)	Opens Popup Info and Cursor menu
8	(Map search only) Map scale	Zooms in/out by dragging
9	n/a	Menu (Find, Quick, Route, Main)
10	Map orientation and Overview	Switches North-up, Track-up and Overview
11	GPS position quality	Opens GPS Data screen
12	Battery status	Opens settings
13	Sound on or muted	Enables/disables muting
14	Track Log recording or playback	Opens Track Logs screen
15	n/a	Opens Cursor menu
16	(Cockpit only) Current street	Opens Route Information screen
17	(Cockpit only) Travel and Route data**	Opens Route Information screen
18	(Cockpit only) Distance to next turn***	n/a
19	(Cockpit only) Next street***	n/a
20	(Cockpit only) Approaching next turn****	n/a
21	n/a	(Map search only) Opens Cockpit screen

*** Contents differ when a route is active*

*** Appears only when a route is active

**** Appears only when a route is active and the next turn is near

4.3.1 Turn preview (No. 1)

On the Cockpit screen this field shows a graphic illustration of the next turn. For example when you approach a turn, an arrow will show whether it is a slight, normal or sharp turn. When showing a traffic circle, the number of the exit is also given in the picture.

This field also serves as a button. Tap it to get to the Route menu (Page 45).

4.3.2 Zoom in and out (No. 2 & 3)

These semi-transparent buttons are only displayed if "Zoom & Tilt" is enabled in the Display menu (Page 39).

Zoom will change the scale of the map. Zoom out shows a larger part of the map, while Zoom in shows a smaller part of the map in more detail.

The automatic Smart Zoom function will do the necessary zooming for you when navigating (zooms out if the next turn is at a distance to let you see far ahead and zooms in when approaching a turn to give you a better view of the upcoming turn). If you manually change the zoom level, Smart Zoom will no longer scale the map by itself (automatic tilting and rotating remains active).

You need to tap the Back button (Page 28) to return the zoom control to Smart Zoom.

4.3.3 Tilt up and down (No. 4 & 5)

These semi-transparent buttons are only displayed if "Zoom & Tilt" is enabled in the Display menu (Page 39).

This function modifies the vertical viewing angle of the map in 3D mode. You can change the angle in a wide range starting from a top down view (2D view is seamlessly integrated) all the way to a flat view that lets you see far ahead.

The automatic Smart Zoom function will do the necessary tilting for you when navigating (gives a flat view if the next turn is at a distance to let you see far ahead and raises the angle when approaching a turn to give you a better view of the upcoming turn). If you manually change the view angle, Smart Zoom will no longer tilt the map by itself (automatic zooming and rotating remains active).

You need to tap the Back button (Page 28) to return the tilt control to Smart Zoom.

Note: 3D view is only useful for navigation. As you zoom out, the view angle will automatically be raised. When finally 2D view is reached, these buttons disappear. When you zoom back in, 3D view will gradually return.

4.3.4 Back to navigation - lock to GPS position and heading (No. 6)

This semi-transparent icon is displayed if GPS position is available, and the map has been moved. It also appears when you scale or tilt the map while Smart Zoom is enabled.

This semi-transparent icon is displayed if GPS position is available, and the map has been moved or rotated. It also appears when you scale or tilt the map while Smart Zoom is enabled.

Normally AVIC-S2 positions the map to keep the GPS position visible somewhere on the map (when North-up orientation is selected), or always at the bottom centre of the map (when Track-up orientation is selected).

If you manually move the map, it will freeze the map in the new position. To return to the GPS position, use this Back button.

When Smart Zoom is enabled, scaling or tilting the map also stops the automatic zooming or automatic tilting respectively. To reactivate Smart Zoom, tap this button.

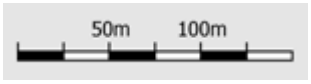
4.3.5 Cursor (No. 7)

As described earlier (Page 19), if you tap the map somewhere or select one specific item in Destination, it will become the selected point on the map, marked with a small red dot and radiating red circles to make it visible. You can use this point as starting point, via point or destination for your route, you can search for a POI near it, mark it with a pin, or save it as a POI.

Note: When GPS position is available, the Back button will appear indicating that you have disabled Lock-to-Position. Tapping the Back button will re-enable the position lock and move the cursor back to the current GPS position.

4.3.6 Map scale (No. 8)

The scale indicator is only available on the Map screen. In 2D map view it represents the scale of the map. In 3D view it is the scale of the nearest part of the map only.



You can use it in both 2D and 3D modes to scale the map. Drag and pull it right to zoom in, or left to zoom out.

4.3.7 Navi button - Menu (No. 9)

This button opens the Menu with the Find Destination engine, the Display menu, the Route menu, and the Settings button. The Menu will be described in detail later: Page 38.

4.3.8 Map orientation and Overview (No. 10)

You can view the map screens in three different presentation modes. This switch will cycle through them in the following order.

The usual map orientation for navigation is Track-up. It means AVIC-S2 rotates the map during navigation to always face the direction of your travel. In this mode an arrow (compass) points towards North.

Tap this icon to switch to North-up mode. Now the map is fixed to keep facing North. The icon changes to show the new rotation mode.

Tap the icon again to enter Overview mode. This mode looks similar to the North-up mode with one difference: the zoom level in this mode has a fixed default to give you a better look of where you are on the map. You can change the zoom level at any time, this will not cause the Back button to appear, but when entering Overview mode later, the default zoom level will be restored.

The arrow representing your position will be fixed in the middle of the screen. When you move the map in Overview mode, the Back button will appear, and when pushed, it will move the map to have your current position in the middle of the map again.

You cannot rotate the map in Overview mode. This mode is strictly north-up.

You can set up AVIC-S2 so that it will switch to Overview mode during navigation when the next turn is far away. You can specify this distance and the fixed zoom level of Overview in Advanced settings (Page 67).

An aeroplane icon indicates Overview mode.

Tap the icon again to return to Track-up (automatic rotation) mode.

4.3.9 GPS position quality (No. 11)

Similarly to the icon found on the GPS Data screen (Page 24), the map screens also inform you about the GPS signal:

- The blue satellite with the red exclamation mark shows there is no connection with the GPS receiver. GPS navigation is not possible. This icon should not appear if the unit is functioning properly.
- Red shows there is a connection, but the signal is too weak to give a position. GPS navigation is not possible.
- Blue shows there is a GPS position, and navigation is possible. When only one arc is shown, the position is 2D (no altitude available), and position error may be significant, but AVIC-S2 is ready to navigate.
- A blue satellite and two arcs represent a 3D GPS position. AVIC-S2 is ready to navigate.
- When small car symbols are displayed under the dish, TMC information is available.

4.3.10 Battery status (No. 12)

The status of the battery is also shown by AVIC-S2. You can estimate the available power reserve from the length of the bar inside. Some examples:

- The thunderbolt in the battery shows the battery is connected to external power and being charged.
- Battery is not charging, and it is at full capacity.
- Battery in not full, but there is sufficient reserve capacity.
- Battery needs recharging.

4.3.11 Sound muting (No. 13)

By tapping this button you can quickly mute all sounds of the device. This will not modify the volume level and the enabled or disabled status of the key sounds, just mutes the sound output. When muting is enabled, the speaker icon is crossed out.

Tap again to enable sounds.

4.3.12 Track Log recording/playback indicator (No. 14)

When a track log is being recorded, a red icon is displayed on the map screens. This icon also functions as a button leading to the Track Log screen (Page 43) where you can stop the recording or make the track log visible on the map.

During track log playback a green icon will blink. Tapping this icon (in fact, tapping the screen anywhere) stops the simulation.

4.3.13 Cursor menu (No. 15)

The Cursor is the selected point on the map (marked by a red dot and radiating red circles around it), or the current GPS position when it is available and Lock-to-Position is enabled. When you tap the screen to place the Cursor, the Cursor menu pops up automatically to give you the list of possible functions you can use the Cursor for. At the same time Popup Info (street name, house number and the list of POIs nearby) appears near the selected map point if Popup Info is enabled in the Quick menu (Page 38).

If you do not use the Cursor menu in a few seconds, it will automatically vanish back to the bottom of the screen, and Popup Info disappears, too. You can have them reappear by reopening the Cursor menu using the arrow in the bottom right corner. When you open the menu manually, it will stay on until you close it or switch to another screen.

Tip: If you want to see the map around the Cursor, close the Cursor menu and reopen it. When this menu is opened manually, the map is always moved to have the cursor in the centre.

The content of the Cursor menu depends on the screen (Map or Cockpit) and it is slightly different if there is an active route already planned. You have the following options:

- **Start:** use the Cursor as the departure point for your route. This menu point is available only in Map mode and when there is no active route. In Cockpit mode the departure point of the route is always the GPS position or if it is not available, the last known GPS position.
- **Route To:** use the Cursor as the destination of your route. This button is to start a new route. The previous route (if it exists) will be deleted and replaced. If a multi-point route is active, AVIC-S2 will ask you whether you really want to delete it together with all its via points.
- **Add Via:** by inserting the selected map point as a via, you instruct AVIC-S2 to cross this location before the destination of the route. This is the way to build a multi-point route in reverse order (when you wish to insert a stopover 'go to A but first get some fuel at B' or want to influence the direction of the route). This menu point works only if a route is already active.
- **Remove Via:** removes the 'via point' near or at the Cursor. The route will be recalculated immediately excluding the deleted point. This menu point replaces Add Via and is available only if the Cursor is near or at a via point.

- **Continue:** add a new destination to be reached after the previous destination. The new destination replaces the old one, which is now demoted to a via point. This is the way to build your multi-point route in straight order (when you wish to visit several destinations ‘go to A then to B’). This menu point is available only if a route is already active.
- **Pin:** push a coloured pin in the map at the selected point for later use. This pin is visible at all zoom levels and also appears in the History list together with its exact position. The colour of the pin is automatically selected by AVIC-S2.
- **Unpin:** remove the pin near or at the Cursor. This menu point replaces Pin and is available only if the selected point is near or at a pin.
- POI: opens the list of POIs near the selected point. These are the POIs shown in the Popup Info window. This menu point is only available on the Map screen. If you want to add a new POI at the cursor, you can do so by tapping Add POI in the bottom left corner. You can also add a new road safety camera if you tap Add Cam, and set the parameters (type, direction, and speed). If a camera already exists near the cursor, this button is inactive, and you can change the parameters of the camera by tapping it in the list.

4.3.14 Current street (No. 16)

This field of the Cockpit screen shows the name or number (as available) of the current street or road you are driving on.

4.3.15 Travel and Route data (No. 17)

The contents of these three fields are different when cruising (without an active route) or navigating (following an active route).

While cruising, the fields show the present speed, the current speed limit and the time of day.

While navigating a route, these fields show the estimated time needed to reach the destination (ETE), the distance to destination, and the estimated arrival time at the destination (ETA) by default.

You can choose what to display in these three fields during navigation, by going to Advanced settings / Displayed Info (Page 66). See the following list for your options. The only restriction is that you cannot select a value that already appears in another field. The possible field contents are:

- Distance to destination (default value for the left field)
- Time to destination (estimated time en route, default value for the middle field)
- Distance to next via point
- Time to next via point

- Time to next manoeuvre (next route event)
- Speed
- Speed limit
- Arrival at next via point
- Arrival at destination (default value for the right field)

4.3.16 Distance to next turn (No. 18)

This field shows the distance to go before reaching the next route event (turn, roundabout, exit, etc.)

This field is only displayed when navigating to a destination.

4.3.17 Next street / Next manoeuvre (No. 19)

This field shows the road or street that comes next in the route itinerary.

If you are not yet in the settlement where this next street is, AVIC-S2 will display the name of the settlement instead of the name of the road or street. A bullet symbol will appear next to the name of settlements to help you tell them apart from street names.

This field is only displayed when routed to a destination.

4.3.18 Approaching next turn (No. 20)

This bar is only visible when approaching the next route manoeuvre. It appears on the screen to visualise the distance when you get closer than 300 meters (1000 feet) to the next turn, and it remains visible until you reach the turn.

This field is displayed only when routing to a destination.

4.3.19 Mode button (No. 21)

This button is available on the Map screen only. Tap it to return to the Cockpit screen.

4.4 Route Information screen

The Route Information screen has all the data and some of the functions you need while you navigate. Some additional functions can be found in the Route menu (Page 45). Without an active route one of the buttons is inactive and route data cannot be displayed.

4.4.1 Route data displayed (for destination and via points)

In the top section of the screen you see information about the current route. These fields are continuously updated while you keep this screen open.

When you open the screen, all fields contain information on reaching your final destination. Tap any of the fields to see data on the via points starting from the first one through the final destination again.

4.4.1.1 Route line

The upper part of this screen shows your planned route as a horizontal line. Its leftmost point is the start of the route, the rightmost one is the final destination, and you can see your via point flags along the line, spaced in proportion to their distance.

The red arrow representing your position will travel from the left to the right, giving you visual feedback of your journey.

When you reach a via point, it becomes the starting point of the route, the past will be deleted, the line with all the other via points will be modified instantly, and the arrow jumps back to the left.

When the data corresponding to the entire route is displayed in the fields below, the line is coloured the same way as the route line shown on the map. When you see data that belongs to a via point, the route is coloured only up to that via point. The rest of the line remains grey.

4.4.1.2 Distance Left

This value can also be displayed in one of the Route data fields on the Cockpit screen as ‘Distance to destination’. This is the distance you need to travel on the route before reaching your final destination.

If via points exist, tap and tap again any of the fields to see the distance to reach the first, second, etc. via point.

4.4.1.3 Method

This field shows how the route was calculated. It either displays the ‘Route’ or the ‘Vehicle’ field from the Route parameter settings. If you have chosen Car, Taxi, Bus or Lorry, the type of the route (Fast, Short or Economical) will be displayed here; if you have selected Emergency, Bicycle or Pedestrian, this information will be displayed here.

4.4.1.4 Time Left

This is an estimated value that can also be displayed in one of the Route data fields on the Cockpit screen as ‘Time to destination’. It shows the time needed to reach the final destination of the route based on information available for the remaining segments of the route. The calculation cannot take into account traffic jams and other possible delays.

If via points exist, tap and tap again any of the fields to see the time needed to reach the first, second, etc. via point.

4.4.1.5 Estimated Arrival

This is an estimated value that can also be displayed in one of the Route data fields on the Cockpit screen as ‘ETA to destination’. It shows the estimated arrival time at the final destination of the route based on information available for the remaining segments of the route. The calculation cannot take into account traffic jams and other possible delays.

If via points exist, tap and tap again any of the fields to see the estimated arrival at the first, second, etc. via point.

4.4.1.6 Destination / Via point

This field shows the exact address (or its coordinates if the address is not available) of the final destination.

If via points exist, tap and tap again any of the fields to see the address or coordinates of the first, second, etc. via point.

4.4.2 Warning icons

The following 5 squares are normally grey. Some of them turn red and show a graphical symbol in case warning(s) are attached to the planned route. These are

warnings, so icons always show information for the whole route, even if the data fields display values from your current position to a via point only.

Click on any of the icons to show its description.

A few samples of the available icons:

- This icon shows that you need to pay toll on the recommended route.
- This icon shows that the route contains freeways. Tap the icon to see the total length of the freeways in the recommended route.
- This icon shows that toll roads are included in the recommended route.
- This icon shows that you need to board a ferry along the recommended route.
- This icon shows that you need to pay for the ferry.
- This icon is displayed when AVIC-S2 could not plan a route with all your road type preferences respected. Sometimes it is impossible to find a suitable route near the start or the destination.
- This icon warns you that AVIC-S2 had to recommend a route that does not match all your preferences given at the Route Parameters settings.
- The recommended route contains areas only accessible to pedestrians.
- The recommended route contains unpaved roads.
- The recommended route contains roads that require a permit or permission to enter.
- Information – any other piece of relevant but not categorised information. Tap the icon to see the content.
- Next page – displayed when more than 5 warnings apply for the recommended route.

4.4.3 Fit to screen

Tap this button to display an overview of the whole recommended route. You will jump to the Cockpit screen with a 2D North-up view so that you can check where the route takes you.

4.4.4 Parameters

This button opens the Route parameter settings screen (Page 62) otherwise opened from the Route menu (Page 45).

4.5 Menu

The Navi button can be found in the bottom left corner of the map screen.

Tapping this button brings up a menu that allows you to access some of the most frequently used functions of AVIC-S2.

4.5.1 Destination tab

The first page of the Menu is Destination (Find). It lets you select a destination without first having to locate it on the map. The Destination menu will be described in detail later here: Page 70.

4.5.2 Display tab

This provides quick access to some configurable options.

4.5.2.1 3D/2D Map

When this switch is turned on, the map shows a perspective view. You can use the tilt function to change the angle of the view. When it is turned off, the map is displayed in a conventional top-down view. This 2D view is also the end of the tilt range, so it can also be accessed by tilting the map up. Conversely, 3D mode can be switched on by tilting down in 2D mode. Map view modes are described here: Page 15.

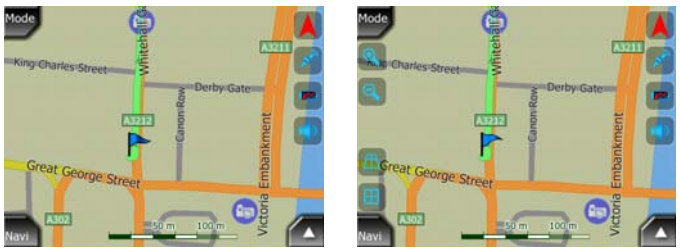
Note: When you reach 2D view by tilting the map, Smart Zoom will tilt the map as you press the Back button. Use the 3D Map toggle to permanently switch to 2D view.

Note: If the map is zoomed out so that the view angle is automatically raised to a top down view, this button will have no immediate effect. When you zoom back in, the view angle will or will not change according to the new state of the button.

4.5.2.2 Zoom & Tilt (switch)

When this switch is turned on, additional transparent buttons (Page 27 and Page 27) appear on the left side of the map screens for zooming and tilting without the use of hardware buttons.

The Tilt buttons appear only at higher zoom levels. If you zoom out, they disappear.



4.5.2.3 Day/Night (switch)

Turn on or off the night colours manually to override the automatic colour scheme switching.

Note: Using this option turns off the Automatic Night Colours feature. You need to re-enable it at the Map Colour settings screen to have the colours change automatically again.

4.5.2.4 Manage POI (Points of Interest)

Here you can set all the parameters of POIs that you have created and the visibility of the built-in POIs that come with the map.

Manage built-in POI visibility

The maps in AVIC-S2 come with a large number of POIs. Displaying all of them would make the maps too crowded (to see how POI items are shown on the map see Page 20). In order to avoid that, you can decide which POI groups to show and which ones to hide on the map. AVIC-S2 has a multi-level POI category system. You can set the visibility of the top two levels. All levels below that will be shown or hidden according to their respective category (i.e. you can set the visibility of Petrol Stations in the Services category, but all brands listed under that will either be shown or suppressed together).

Groups shown with a grey icon are hidden; blue icons are visible on the map, while the ones shown in two colours have some of their subcategories shown and some others hidden.

If you highlight any of the POI groups by tapping them, the button in the bottom left corner will become Show if the POI group is hidden, or Hide if the group is shown or partly shown.

Tip: To make a partly shown group fully shown, tap this button twice. First you will hide the whole group, and then you will have it displayed with all its subgroups.

Tapping again the highlighted POI group (except for My POI – described later) opens the list of subcategories of that group. Here you cannot see bicolour subgroups, as visibility can only be set for the top two levels of categories. Showing and hiding a subgroup is done the same way as for the main groups.

Manage My POI

By highlighting then tapping again the My POI switch on the Manage POI main screen you can manage the POI groups and items that you have created.

Note: The group Unnamed only appears if you have previously saved a POI item without creating a new POI group for it.

Tapping any of the group names will open a list of POIs saved in that group. This list is similar to the list of POI results in Find. The POIs are ordered based on their distance from your current position. If GPS position is not available or you have disabled Lock-to-Position by tapping the map, the POIs will be ordered by their distance from the Cursor.

When the My POI Groups are displayed, you have the following options:

- **Show/Hide:** similarly to built-in POIs, you have the possibility to show or hide all POIs of the selected category on the map. Groups with a blue icon are displayed; groups with a grey icon are hidden.
- **New:** you can create a new My POI group by tapping this button. You need to select an icon, a name, and the maximum zoom level at which the POI is still visible on the map (provided you let the POI group be displayed at all). You do not necessarily need to create POI groups in advance. You can do it while saving a new POI.
- **Delete:** you can delete any of your previously saved My POI groups. This will delete all POIs in that group. AVIC-S2 will ask you to confirm this action.

- **Edit:** you can edit the attributes (name, icon, visibility level) of a previously created My POI group.

- **Left/right arrows:** if your groups fill several pages, these buttons will let you browse through them. The green field left of these buttons shows the current page number and the number of pages.

When the list of My POIs is displayed, you have the following options:

- **Search:** you can shorten the list of matching POI items by filtering. Just like in Find, enter a few letters of the desired POI name. When the number of matching items can fit in one page, AVIC-S2 will automatically display the list. If you tap Done any time before this happens, you receive the list of matches on multiple pages.
- **ABC/Distance:** by tapping this button you can have the POIs sorted in an alphabetical order. Tapping again will return to the distance-based order.

When you tap on any of your POIs in the list, you will open a new window with the details of the selected POI.

Here you have the following options:

- **OK:** if you tap this button, the map screen returns with the selected POI in the middle.
- **Edit:** you can edit the attributes (name, icon and group) of the selected POI.

- **Delete:** you can delete any of your previously saved POIs. AVIC-S2 will ask you to confirm this action.

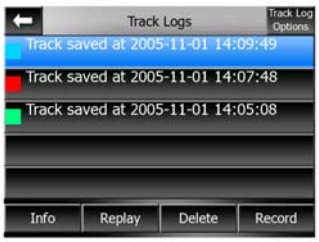
4.5.2.5 Popup Information (switch)

When this feature is enabled, tapping the screen (activating the Cursor, a radiating red dot) on either of the map screens also opens a pop-up box with the selected street name, house number and the name of the nearby POIs, if any.

Tip: Tapping one of the blue Information icons behind the POI names shows the details of the appropriate POI item.

4.5.2.6 Manage Track Logs

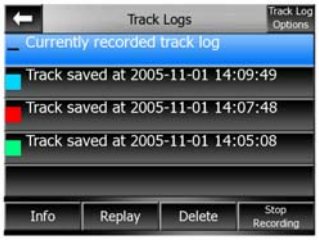
Using AVIC-S2 it is also possible to save the track logs of your journeys. This screen lets you manage all your track logs. When it comes up, it shows a list of all track logs already saved.



The original name of a track log is the date and time when it was recorded. You can change their name to something more meaningful if you wish.

Each track log has a colour, shown to the left of its name when the track log is visible on the map. If the track is not visible, an underscore character is shown here. Tapping the line of the highlighted track log will toggle between showing and hiding that log. The track log will be drawn on the map using the colour next to its name.

When a track log is being recorded, a new line appears in this list with an underscore, as newly recorded track logs are not shown in the map normally.



Tip: If you wish to see the track log currently being recorded, tap on it twice to make it visible.

In this screen you have the following options:

- **Record:** this will initiate track log recording. A new line appears in the list, and GPS position data will be saved until you stop the recording or exit AVIC-S2. A red icon (Page 31) is shown on the map screens to let you know that a recording is in progress. Tapping that icon opens this Track Log screen.
- **Stop recording:** if recording is in progress, this buttons stops it.
- **Info:** this button opens a screen that shows the track log details, and lets you:
  - change the name of the track log (Rename button),
  - change the colour of the track log (Colour on the map selector),
  - have it displayed on the map (Fit to screen button),
  - or export the data to the SD card in GPX format (Track export button).

- **Replay:** push this button to see a simulation of the saved track log on the map. A green icon (Page 31) will appear on the map screens to let you know it is not a fly over but a simulation based on a real saved log.
- **Delete:** you can delete a track log if it is not needed any more. AVIC-S2 will ask you to confirm this action.
- **Track log options:** this button in the upper right corner leads to a settings screen where you can set up the track logging parameters:
  - **Update interval** is how often track points will be saved. Position information is normally received once a second from the GPS. If you do not need such a detailed log, you can increase this number to save track log space.
  - **Current autosave track size:** this figure shows how much memory is used by the automatically saved track logs.

- **Enable auto-saving:** when auto-saving is enabled, you do not need to turn track log saving on and off manually. AVIC-S2 will automatically start recording the track log as soon as GPS position is available.
- **Limit track DB size:** here you can set whether or not to maximise the size of the database where the automatically saved track logs are kept.
- **Maximum track database size:** here you can set the maximum database size if the track database size limit is enabled using the previous switch.
- **Create NMEA/SIRF log:** independently of the normal track log, you can instruct AVIC-S2 to record the native GPS data received from the GPS device. AVIC-S2 is capable of working with GPS devices using either the NMEA or the SiRF protocol, so the saved data will be in one of these formats. These logs are saved as separate text files on the SD card, and they cannot be shown or replayed in AVIC-S2. They are for post-processing needs, should you have any. Be careful when saving native GPS data, as it can soon eat up available memory.

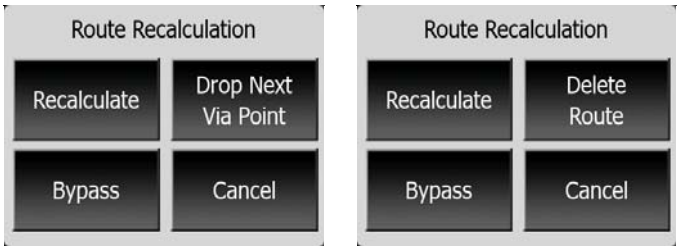
4.5.3 Route tab

This menu contains options to manage different settings in the program.

4.5.3.1 Recalculate

This menu point is only available if an active route exists and GPS position is present.

It brings up a menu with four options. Using one of these functions you can modify the current route.



Recalculate

This function repeats the route calculation based on the same settings as used to calculate previously. You may consider using it when you travel on a road parallel to that recommended by the route. In this case AVIC-S2 may not recalculate the route for some time, but you can force recalculation here.

Drop Next Via Point / Delete Route

You can modify the route to skip the next via point if you decide it is no longer needed. For example, you may have added the via point only to influence the route but you do not want to actually reach it; or you have already almost reached it, and AVIC-S2 still keeps on navigating towards that point. When there are no via points left (only the destination), the name of this button turns to Delete Route, and it cancels the navigation.

Bypass

When you run into a traffic jam or roadblock, you may want to have AVIC-S2 calculate a route that departs the original route as soon as it can. You will need to select the minimum distance along the original route where your new route is allowed to rejoin the original route. Select the one you feel appropriate for the traffic difficulty you face.

Note: This function is to give you an alternative for the next section of the recommended route. To change later parts of the route or to avoid specific streets or turns, use the Avoid function in Itinerary instead (Page 47).

Note: When you use this feature, AVIC-S2 will keep on excluding the same part of the map from later routes until you manually delete the route (Page 47), or restart AVIC-S2.

Cancel

This option returns directly to the map screen without recalculating the active route.

4.5.3.2 Delete

Tap Delete to erase the active route along with all its route points (start, via points and destination). If you later decide that you need the same route again, you will have to rebuild it from scratch. AVIC-S2 will warn you before deleting route data.

This function has a special role if you have used the Avoid feature during your journey. When you arrive at your destination, the route line disappears on the map and navigation stops. The route is now practically deleted, but if you plan a new route, the roads, manoeuvres and areas excluded from your route will also be avoided when planning the new route. Tap Delete to completely delete your previous route together with its Avoid restrictions.

Note: When a POI item is used as a route waypoint, deleting the route will not delete the POI item itself, just its role in the route.

4.5.3.3 Itinerary

This function opens the itinerary (route event list) of the active route. The Itinerary has three different display modes and two functions.

Display modes

Display modes are different only in the number of events displayed in the list. List items are always shown with all information available including pictograms of the needed action and distance of the event from the previous list item.

The Itinerary is live and constantly updated when navigating a route. The list item coming next in navigation is the highlighted one until you highlight another one by tapping. After that, the highlight remains on the item you have selected.

- **Detailed Instructions:** this is the list displayed when Itinerary is opened. It is the list of events in full detail. All significant junctions are shown in the list, even ones to be passed.
- **Instructions:** by tapping the Mode button once you will see the list of events that need your attention, i.e. the list of manoeuvres during the route. These are the events shown in the Turn preview field and announced by the voice instructions.
- **Route summary:** tapping the Mode button again will show an overview of the route that contains only the significant roads and intersections.

Show

Tap this button to see the highlighted list item on the map. This will help you identify route events in the list.

Avoid

Tap this button to show a list of possibilities for modifying the route. They let you recalculate the route avoiding the highlighted event and sometimes also some of the subsequent ones.

- **Manoeuvre:** this option avoids the highlighted action. For example if you find a turn too difficult during rush hour traffic, AVIC-S2 will recalculate the route excluding that turn. If the next street is important in the route, it is likely that AVIC-S2 will replace the turn with several easier ones to get to the same street.
- **Road:** when you exclude a road, AVIC-S2 will calculate a route that does not use that road. It is useful when you anticipate a traffic jam in a street used in your route, or a roadblock is announced on the radio, and you find that road in your Itinerary.
- **Distances:** you can also find some distance buttons in this list. They are similar to the ones in the Bypass list of the Recalculate menu (Page 45), but these can also be used for distant parts of the route.

Note: You need not open Itinerary if you run into a roadblock or traffic jam. To get an immediate alternative route use the Bypass function of Recalculate (Page 45).

Note: When you use this feature, AVIC-S2 will keep on excluding the same part of the map from later routes until you manually delete the route (Page 47), or restart AVIC-S2.

4.5.3.4 Fly Over

This feature has no navigation function, it merely provides a quick view of the route. It will present a simulation of the route showing what you will see later when navigating.

Tap the Fly Over button.

In this mode the simulation is run at normal speed (using the speed limit of the streets and roads in the route), and voice instructions are also played.

This mode is mainly useful for demonstrating AVIC-S2, or to learn the way it works before your start your first journey.

Tap anywhere on the screen to stop the simulation.

4.5.3.5 Edit

Tap Edit to see the list of all points used in the route. The first item in the list is the departure point of the route without a valid GPS position, the last reached via point if you open the list during navigation, or the point where AVIC-S2 most recently recalculated the route. This means the list is permanently updated, and via points drop out during the journey. The last item in the list is your final destination.

Use the arrows on the right to browse through the list and tap any line to highlight it. You can perform the following operations:

- **Add:** you can add a new route point (or a new final destination if the highlighted item is the last one in the list) after the selected point. The Find menu opens automatically to let you search for an address, POI, coordinates, one of your favourite destinations, or select a point from the History list. As soon as you select any of these, AVIC-S2 returns to the Edit screen and your selection appears right under the highlighted line.
- **Delete:** you can delete the selected point from the list. If the highlighted item is the last one in the list, the previous via point will be promoted to be the final destination.
- **Optimise:** you can optimise the order in which you will drive through the via points, if there is no specific order you would like to keep. When tapping this button, AVIC-S2 reorders the list instantly to save you time and fuel. Optimisation is for via points only. Your starting point and destination remain in their positions, of course.
- **Up and Down:** using these buttons you can reorder the list by moving the highlighted item up or down in the list.

4.5.3.6 Info

This button opens the Route Information screen described here: Page 35. This screen shows information about the current route and has a few additional options to check and modify your active route.

4.5.4 Map Search button

Tap this button to jump to the Map screen to select your destination by browsing the map.

4.5.5 Settings button

This button leads to the Settings screen described here: Page 57.

4.6 TMC (Traffic Message Channel)

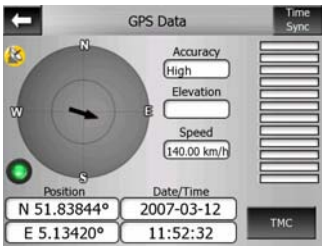
AVIC-S2 can provide you with even better routes if Traffic Message Channel (TMC) information is available. The TMC is a specific application of the FM Radio Data System (RDS) used for broadcasting real-time traffic and weather information.

Note: TMC is not a global service. It may not be available in your country or region. Ask your local dealer for coverage details.

You need a TMC receiver attached to your AVIC-S2 to receive TMC information.

If public TMC data is broadcast at your location, AVIC-S2 will automatically take into account the TMC information received. You do not need to set anything in the program. The receiver will automatically search the FM radio stations for TMC data, and the decoded information will immediately be used in route planning. The moment AVIC-S2 receives traffic information that may affect your route, the program will warn you that it is recalculating the route, and navigation will continue with a new route that is optimal considering the most up-to-date traffic conditions.

The TMC subsystem can be started from the GPS Data screen (Page 23) by tapping the TMC button.



4.6.1 List of TMC messages

The main screen of the TMC section is the list of valid TMC messages ordered by their distance from your current location.

Tap the arrows to turn the page, and see traffic difficulties farther away from your current position, or press Settings to configure the TMC subsystem. This opens a new window.

4.6.2 TMC control centre

This screen shows the selected TMC source and allows you to change the TMC settings.

4.6.2.1 Selected FM radio station

The name and frequency of the selected radio station will appear at the top of this window, together with signal strength information indicated by a bar similar to the GPS satellite signal strength bars on the GPS Data screen.

If there aren't any radio stations broadcasting TMC data in your area, the receiver keeps on searching. You will see the frequency continuously sweeping across the FM CCIR radio band (87.5-108 MHz). When you move to an area with TMC information, the indicator will show the frequency, and detailed information for the TMC station.

4.6.2.2 Exclude selected station

If you wish to receive TMC data from another radio station, push this button. The radio station will be added to the list of excluded stations, AVIC-S2 will start searching for another TMC station, and will always skip the excluded station in the future.

4.6.2.3 Show excluded stations

This button opens the list of excluded radio stations. Tap any of the stations in the list, then tap Enable to allow AVIC-S2 to accept TMC information from this station.

4.6.2.4 Sorts events by distance / type

The list of traffic events can be ordered by their distance from the current position, or by their type. Tap this button to toggle between the two possibilities.

4.6.2.5 Use traffic information

This button is enabled by default, which means that TMC messages are used in route planning. Tap this button to have AVIC-S2 ignore real-time traffic information when planning routes.

Tip: If you make a route planning for a future journey, it may be better to turn off TMC corrected route planning.

4.6.2.6 Recalculate to avoid traffic

This setting is similar to the previous one. Disabling it will not prevent the system from using TMC data for route planning, but will not trigger an automatic recalculation when the traffic conditions change during your journey.

4.7 Road safety cameras

Road safety cameras, such as speed cameras and red light cameras are special POI types in AVIC-S2. The application can warn you when you approach one of these cameras. You can fine-tune this warning in General settings (Page 57).

You can save camera locations manually. It is described in detail at the Cursor menu (Page 32).

To save time, instead of saving them one by one, camera locations can be listed in a special text file, and copied into the data folder reserved for cameras. You will not be able to modify or delete these cameras in AVIC-S2. Modify the text file, then restart the application instead.

Speed cameras are displayed with small camera symbols on the map.

Legal Disclaimer: In some countries the use of systems that give drivers advance warning of Safety Cameras (which includes speed cameras and other type of cameras meant for traffic control) may be prohibited. Pioneer advices you to check your local legislation and to use warning function for Safety Cameras only where this is allowed. Pioneer is no liable for any damage resulting from your use of warning function for Safety Cameras on AVIC-S2.

WARNING: Speed camera information might be not available in certain European countries.
This feature is likely to be removed in Switzerland, Germany, Austria, Ireland, Czech Republic, Denmark, Poland, Portugal and Slovenia due to local legislation.

4.7.1 Camera types

There are five types of speed cameras:

4.7.1.1 Fixed cameras

Some cameras stand by the roadside, looking in one direction, measuring one or both directions of the traffic. They measure your current speed. For these cameras you can specify the controlled traffic direction and the speed limit. AVIC-S2 will warn you when you approach these cameras in the measured direction. If your speed exceeds the speed limit near the camera, a special warning sound will be played.

These cameras are displayed with the following symbol:

4.7.1.2 Mobile cameras

Some cameras are operated from vehicles. The database contains some typical places of these mobile cameras. They are not always operational at the given location, and the speed limit is not specified for them. The warning is similar to fixed cameras, but as there is no speed limit given, only the proximity is announced.

These cameras are displayed with the following symbol:

4.7.1.3 Built-in cameras

Some cameras are built in traffic lights. They work like fixed cameras, but they are difficult to spot. The warning for proximity and speeding is the same as for the fixed cameras.

These cameras are displayed with the following symbol:

4.7.1.4 Section control cameras

These cameras work in pairs, and do not measure your current speed but your average speed between the two cameras. Both will identify your car, and record the exact time you pass them. The difference between the two points of time will be used to calculate your average speed.

AVIC-S2 will warn you when you approach one of these cameras, but as you pass by, the warning stays on, and your average speed is measured until you reach another camera of this type. If your average speed exceeds the speed limit between the two cameras, you will receive the same special warning sound as with the other camera types.

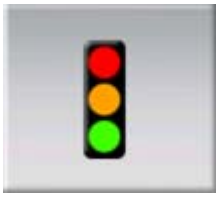
Note: In the rare case AVIC-S2 cannot register the moment you pass the second camera (e.g. it is placed at the exit of a tunnel where GPS position is not yet available) the warning will continue. Just tap the camera symbol displayed on the screen to stop the warning.

These cameras are displayed with the following symbol:

4.7.1.5 Red light cameras

These cameras check if you obey traffic lights or not. The warning is similar to fixed cameras, but as there is no speed limit given, only the proximity is announced.

These cameras are displayed with the following symbol:



4.7.2 Controlled traffic direction

The different cameras can measure the speed of one direction of the traffic, both directions, or even several directions in an intersection, when they are mounted on a rotating base. AVIC-S2 warns you only if you drive in a measured or possibly measured direction.

The measured directions of the cameras are displayed with the following symbols:

4.7.3 Speed limit checked

As additional information, the speed limit checked by the camera is given for fixed, built-in and section control cameras. When you manually save a camera location from the Cursor menu (Page 32), the speed limit of the road (if available) is used by default, but you can change this value with the given control:

4.7.4 Add a new camera or edit an existing one

You can add new cameras, modify the parameters of existing ones, or delete them. Select a point on the map, then use the POI button in the Cursor menu (Page 32). This will open the list of POIs around the selected map point. To add a new camera, use the Add Cam button, and set its parameters. To edit an existing camera, find it at the end of the POI list, and tap it. A new screen will open with its details. Tap Delete on this screen if you wish to cancel the camera.

Safety Camera
Camera Type:
Camera Direction:
Camera Speed:
80 km/h
OK

5 Settings

AVIC-S2 provides several settings in order to let you customise the functions of the program. The Settings screen can be accessed directly from the map screens by using the battery icon (Page 31), while some of its sub-screens are accessible from other parts of the program.

5.1 Safety settings

These are the driving safety settings of AVIC-S2.

5.1.1 Safety Mode

Safety mode will disable the touch screen above 10 km/h (6 mph) to keep your attention on the road.

You are still able to use the hardware buttons, but you cannot set a new destination or change the settings.

When you disable Safety Mode, AVIC-S2 will warn you.

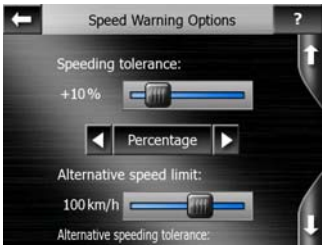
WARNING: Safety Modeshould not be disabled when driving alone. Do not operate this Navigation System if doing so in any way will divert your attention from the safe operation of your vehicle or other mode of transportation. Only a passenger should program/operate this Navigation System while a vehicle is moving. A driver should use voice guidance (when available) or glance at the screen only when it is necessary and safe to do so. If prolonged viewing of the screen or programming/operation of the unit is required by the driver, do so only when the vehicle is parked in a safe location. Always observe safe driving/operating rules and follow all existing traffic regulations.

5.1.2 Warn When Speeding

Maps may contain information about the speed limits of the road segments. AVIC-S2 is able to warn you if you exceed the current limit. This information may not be available for your region or may not be fully correct for all roads in the map. This setting lets you decide whether you want to receive the warnings or not.

WARNING: This feature is provided only as an aid. It may not accurately reflect current driving conditions or speeds. In addition, the system has certain limitations, including the inability to identify certain one-way streets, temporary traffic restrictions, road and weather conditions, traffic flow, and potentially unsafe driving areas. Recent changes to streets/highways also may not be reflected in this database. Please exercise your own careful judgement in the light of actual conditions and traffic laws/regulations. Always obey current traffic restrictions, even if the navigation system provides contrary advice.

If you turn on this switch, AVIC-S2 will open a new screen to let you customise the parameters used by the speed warning.



You can set two different kinds of behaviour for the warning: one is applied up to a certain speed limit and the other one is used above that.

5.1.2.1 Speeding tolerance

AVIC-S2 will warn you when you exceed the speed limit by the amount specified here. Select whether you want to specify the tolerance as a Fixed value (offset to the speed limit) or as a Percentage.

The slider will change depending on which mode you have chosen.

Both positive and negative values can be given in either offset or percentage mode.

5.1.2.2 Alternative speed limit

If the speed limit of the current road segment equals or is above this limit, the speed warning will use the alternative tolerance instead of the previous one.

Move the slider to its rightmost position to turn off the alternative speed warning. Then the settings of the upper slider will determine the warning for all roads.

5.1.2.3 Alternative speeding tolerance

If the speed limit of the current road reaches the value set at Alternative speed limit, this setting will replace the basic one set at the top of this screen. The slider and the selector work exactly as the basic ones described here: Page 58.

Example: to let you better understand how this feature works, here is an example. If you use the settings +10 km/h – 100 km/h – +5%, AVIC-S2 will warn you when driving at the following speeds:

Speed limit	Warning at	
40 km/h	50 km/h	(=40 km/h + 10 km/h)
60 km/h	70 km/h	(=60 km/h + 10 km/h)
90 km/h	100 km/h	(=90 km/h + 10 km/h)
100 km/h	105 km/h	(=100 km/h + 5%)
120 km/h	126 km/h	(=120 km/h + 5%)
160 km/h	168 km/h	(=160 km/h + 5%)

5.1.3 Enable Safety Cameras

AVIC-S2 can warn you when you approach known speed and red light cameras previously uploaded or copied into the device, or saved manually in the software. You can save cameras using the POI button in the Cursor menu (Page 32), and then the Add Cam button. The types and parameters of speed cameras are explained here: Page 52.

If you turn on this switch, AVIC-S2 will open a new screen to let you fine-tune the way AVIC-S2 warns you when you approach one of these cameras.

Note: Detecting the location of speed cameras may be prohibited by law in certain countries or regions. Be sure to check if it is legal to turn on this warning or not before doing so.

5.1.3.1 Audible Warning

You can disable the audible warning; have a simple warning (when you are warned only if you exceed the speed limit when approaching a camera); or a complex sound with repeated beeps as you approach the camera. In case of section control

cameras, you will also hear these beeps while you are between the two cameras (these cameras work in pairs).

You are warned well in advance. The distance AVIC-S2 starts warning you before reaching the camera depends on your speed. The higher the speed, the earlier the warning starts.

5.1.3.2 Visible Warning

Besides this, AVIC-S2 can pop up a visual warning with only the symbol of the camera above the speed limit sign on the Cockpit screen, or you can ask for details as described below.

Approaching a fixed or built-in camera you will see the speed limit checked by the camera, and the remaining distance to reach the area monitored by the camera.

With mobile cameras you can only see the distance from the measured area, as there is no speed limit set.

When approaching the first of section control camera pairs you will see the same data as with a fixed camera (speed limit and distance). Then while being between the two cameras, your frequently updated average speed is displayed below the speed limit.

5.2 Map Colour settings

You can set a few parameters determining the appearance of the maps in AVIC-S2.

5.2.1 Daylight / Night colour profile

AVIC-S2 comes with different colour schemes for both daylight and night use. There is always one selected daytime scheme and one selected night-time scheme. AVIC-S2 uses these when switching from day to night and back.

Tap the appropriate button and select a new scheme from the list.

5.2.2 Automatic Night Colours

Using the automatic night mode, AVIC-S2 will change between the daylight and night colour schemes a few minutes before sunrise and a few minutes after sunset based on the time and location information provided by your GPS. Once you set a permanent colour scheme in the Quick menu (Page 39), this automatic mode turns off. If you need AVIC-S2 to switch between colours for you again, you need to re-enable this feature.

5.3 Sound settings

Settings on this page determine the way AVIC-S2 sounds.

5.3.1 Click Sounds switch

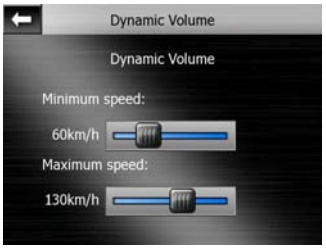
This switch can turn the key sounds on or off. Key sounds are audible confirmations of either pressing hardware buttons or tapping the touch screen.

Note: The sound effects of AVIC-S2 are context sensitive. They will be different if, for example you open or close a window, or you enable or disable a setting.

5.3.2 Dynamic Volume

When driving at high speed, the noise in the car may be too loud to clearly understand the voice guidance messages and to perceive the key sounds. Using Dynamic Volume you can instruct AVIC-S2 to increase the volume when your speed exceeds a certain minimum, and reach its highest volume at the given maximum speed.

Tap the Dynamic Volume button to turn on the feature. This will also open the screen where you can set the minimum and maximum speeds.



5.3.3 Attention Tone

If this is set to Disabled, the voice guidance will sound without a preceding attention tone. Setting it to Single Tone will initiate a single attention tone before the instructions, while Double Tone will use a double tone.

Note: The Mute function (Page 31) accessible from the map screens overrides the settings on this screen. When AVIC-S2 is muted, all sounds disappear. These settings will not be changed; only the output will be muted temporarily.

5.4 Route parameter settings

Settings in the route parameter menu determines how routes will be calculated. This screen is directly accessible from the Route Information screen (Page 35).

5.4.1 Route

Here you can choose from three different route types.

5.4.1.1 Short

Choosing Short will result in a route that has the shortest total distance of all possible routes between the given points.

5.4.1.2 Fast

Choosing Fast will result in the quickest possible route, given that you can travel at or near the speed limits on all included roads.

5.4.1.3 Economical

This setting is a wise combination of the previous two. Although basically going for the fastest solution, if there is another route taking a bit more time but a lot less distance compared to the fastest one, AVIC-S2 will choose this one instead to save fuel.

5.4.2 Vehicle

You can set the type of the vehicle that matches your speed profile and route preferences. Based upon this setting, some of the road types will be excluded from the route, or some of the restrictions may not be taken into account.

5.4.3 Road types to include/exclude

To let the route fit your needs you can also set which road types are to be considered for or to be excluded from the route if possible.

Note: Excluding a route is a preference. It does not guarantee that the road type will always be excluded. If your destination can only be accessed using some of the excluded road types, a warning icon will be shown on the Route Information screen (Page 35), and the road not matching your preference will be displayed in alternate colour on the map.

5.4.3.1 Unpaved Roads

Unpaved roads are excluded by default, as they can be in a bad condition and you usually cannot reach the speed limit on them.

5.4.3.2 Freeways

When driving a slow car or towing another vehicle, you may prefer not to take freeways.

5.4.3.3 Ferries

The accessibility of temporary ferries is not necessarily included in the map data. Furthermore you may need to pay fare, so you may consider disabling them from the preset enabled status.

5.4.3.4 U-turns

Although displayed amongst road types, this is a type of action. Most drivers prefer to replace them with a few normal left and/or right turns in the next few junctions, so it is disabled by default.

Turning back on dual carriageways is not considered as a u-turn. A dual carriageway or divided highway is a road or highway in which the two directions of traffic are separated by a central barrier or strip of land.

Note: Via points are handled as stopovers with regards to u-turns. It means disabling u-turns on this page will avoid u-turns during the entire route if possible, but when reaching a via point, the following part of the route may be planned starting in the opposite direction.

5.4.3.5 Permit needed

To use some roads or enter some areas you may need special permit or permission from the owners. These roads are excluded from your routes by default. Use this switch if your vehicle is authorised to enter.

5.4.3.6 Toll Roads

Toll roads are included in your routes by default. If you wish to travel more to avoid paying a toll, disabling them will make AVIC-S2 plan the best toll-free route for you.

5.4.4 Cross-border planning

By default AVIC-S2 plans routes using the border crossing points. However, if you live near the border, you can disable border crossing with this switch to remain within one country.

5.5 Language

Here you can set the languages used by AVIC-S2.

5.5.1 Program language

This button displays the current written language of the program. By tapping the button you can select from a list of available languages. AVIC-S2 will have to be restarted if you change this setting. AVIC-S2 will ask for confirmation before it restarts.

5.5.2 Voice language

This button shows the current language of the voice guidance. By tapping the button you can select from a list of available languages and speakers. Tap any of these to hear a sample voice prompt. Just tap OK when you have selected the new spoken language.

5.6 Advanced settings

These screens let you set a large number of different advanced settings and initiate some special functions. These settings and functions are divided into groups.

Tap on any button to set the corresponding parameters. They all open new windows where you can make your desired changes.

5.6.1 Regional settings

Here you can set the measurement units, coordinate, date and time formats used by AVIC-S2.

5.6.1.1 Units

You can set the distance units to be used by the program. AVIC-S2 may not support all of the listed units in some voice guidance languages. If you select a measurement unit that is not supported by the chosen voice guidance language, you will see a red warning message under the selector.

5.6.1.2 Coordinate display format

Positions are sometimes displayed with their addresses, and sometimes with their coordinates. This setting lets you choose between displaying coordinates in degrees (dd.dddddd); degrees and minutes (dd mm.mmm); or degrees, minutes and seconds (dd mm ss.s).

Note: the coordinate display mode is independent from the coordinate input in Find menu. You can use all three formats freely on the coordinate input screen.

5.6.1.3 Set Date & Time Format

You can set the date and time format displayed by AVIC-S2. Various international formats are available.

5.6.2 Displayed information

There are three route data fields on the left of the Cockpit screen.

Their content is fixed in Cruise mode (when there is no active route), but for Navi mode you can change their content on this screen. The available values are listed here: Page 33.

5.6.3 Smart Zoom

Smart zoom is a lot more than just a usual automatic zoom.

While navigating a route: when approaching a turn, it will zoom in and raise the view angle to let you easily recognise your manoeuvre at the next junction. If the next turn is at a distance, it will zoom out and lower the view angle to be flat in order to let you see the road in front of you, or it can even switch to an Overview mode to let you follow your position on the map.

While cruising: if there is no active route and you are just driving, Smart Zoom will zoom in if you drive slowly and zoom out when you drive at high speed.

These automatic features can be set up on this screen.

5.6.3.1 Smart Zoom switch

Use this switch to turn Smart Zoom on or off.

5.6.3.2 Enable Overview mode

You can configure how the Overview mode is triggered when the next turn is at a distance.

The Route event distance will determine when AVIC-S2 switches to the Overview or back to the Navigation view.

The Overview zoom level will determine the fixed zoom level of the map in both automatic and manually selected (by the Map orientation icon – see here: Page 29) Overview modes. You can change the zoom level manually at any time (the Lock button will not be displayed), but when you enter the Overview mode again, the zoom level will be reset to this value.

You can also move the map in Overview mode. Then the Back button will appear, and when pushed, it will move the map to have your current position in the middle again.

Note: when this automatic feature is disabled, you can still enable the Overview mode manually as described here: Page 29.

5.6.3.3 Keep position on road (Lock-on-Road)

AVIC-S2 is normally used for vehicle navigation, therefore Lock-on-Road will display the position arrow precisely over roads, seamlessly correcting small GPS errors.

Note: By turning off Lock-on-Road you also turn off the GPS position error filtering. The position shown on the map will be subject to all position errors and position fluctuations.

5.6.4 Set Favourite Destinations

You can select two of your most frequent destinations to be your favourites (Page 79). You can start navigating to either of them by only two taps on the screen. The original names of these points are Home and Office.

You can rename them and specify their locations. To determine the location you can use the same Find menu options (Page 70) as for a route destination, and depending on that choice and the information available, the location will be shown here as a street address, a latitude/longitude position, or both.

5.6.5 User data management

Everything that was saved (pins, My POIs, Favourites, track logs etc.) or modified (Settings, History lists) since AVIC-S2 was installed is stored in a user database located in the internal memory of the AVIC-S2. Here you have options to save, restore or reset the database or parts of it.

5.6.5.1 Backup Data

You can make a safe copy of the whole user database on a memory card.

Tap this button to copy all user data and settings on the memory card. The backup is always created with the same file name; so backing up data will always overwrite previous backups.

Tip: If you wish to keep more versions of the user database, or you wish to save one particular state (e.g. saved POIs and track logs of your holiday), look for the backup file on the SD card, rename it, or save it to your PC.

5.6.5.2 Restore Data

If you have accidentally deleted things, or you have created a number of temporary items and you do not wish to delete them one by one, you can tap this button to restore the state of AVIC-S2 to the latest backup.

By tapping this button you will lose all of the changes made since the time of the latest backup. AVIC-S2 will warn you about this before overwriting the current database with the backup.

5.6.5.3 Clear Data

This button will delete all user data. It is a reset to factory settings. Tapping this button means you lose all your saved data and customised settings. AVIC-S2 will warn you about this.

5.6.5.4 Reset Advanced Settings

There are a multitude of Advanced settings in AVIC-S2. Some changes may cause AVIC-S2 to behave in an unsatisfying manner. Tap this button to restore the default settings.

5.6.6 About screen

Tap About to open this screen. The About screen is not used in normal navigation. It is there to inform you about the maps you have, the creators of the software, and the legal aspects of using it.

6 Find your destination

One of the most frequently used functions of AVIC-S2 is selecting the destination. Once you have the destination, you can start navigating. AVIC-S2 provides you with a versatile search engine designed to find your chosen destination after only a few taps on the screen.

Note: If you select a location in any part of the Find system, you will drop back to the map screen, where you will have several possible actions (set as start, set as destination, add as via point, continue route with, or add as a POI item).

6.1 Selection by tapping the map

To set your destination destination from the map, tap it, and the Cursor menu with the possible actions will then open automatically.

Note: When appearing automatically, the Cursor menu remains open for a few seconds only. If you decide not to choose any of the actions listed, the menu closes automatically. When you open it manually, it will remain until you close it or switch to another screen.

Tip: If you want the selected point shown in the centre of the map, close and reopen the menu or wait until it closes and open it again. By opening the Cursor menu manually, the map will be moved to have the selected location in the centre.

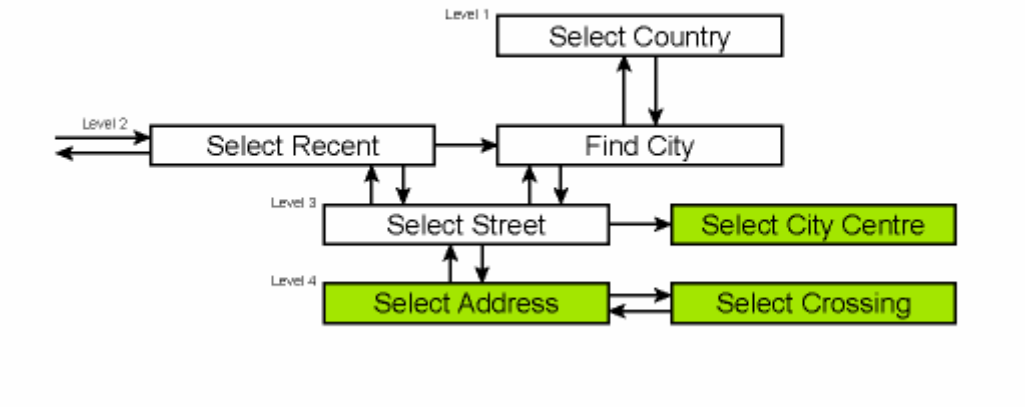
6.2 Using the Destination menu

The Destination menu is accessible by the Navi button of the map screens (Page 29). The Destination menu gives you various possibilities for selecting a location.

6.2.1 Find an Address, Street, Intersection or City

Searching for a city, a street, an intersection, or an exact address can all be done in the Destination Menu. If you know at least a part of the address, this is the quickest way to find the location.

The following illustration shows the structure of the address-search module. There are four levels (Country, City, Street and Address). The state level appears only in case of some countries. The list of recent cities and states is the entry point of the module. The green rectangles are the exits. You can complete your search by selecting the centre of a settlement, the midpoint of a street, an intersection of two roads, or an exact address.



You enter the module at Level 3. From this point you can go forward (down) to give the name of the street, then the house number or intersection, or backward (up) to change the city or country to search.

6.2.1.1 Selecting the city, state and country to search in

The first screen of the address-search module is the list of recently used cities.

During normal navigation the first line of the list is always the settlement you are in or near to. Without valid GPS position, or if the Back button appears, the first line is the location the Cursor is in or near to.

Should the location you are looking for appear on the list, just tap it and you will immediately jump to the Street Name Input screen with the selected city name or zipcode shown at the top of the screen. If the desired settlement is not displayed, use the arrows in the bottom right corner to see more of this list.

Tip: If during navigation you need to know the name of the city or the country you are currently in, just start Find/Address and read the first line of the list. This function leads to a reliable result only if GPS position is available, and you have not disabled Lock-to-Position by moving the map.

If you find that the list of recently used cities contains locations you will not visit in the near future, you can choose to empty the list by the Clear button in the bottom left corner.

Selecting a new location to search in

If you are looking for a city or town (or state) you cannot find on the list, tap Other City in the top right corner. This will take you to the city name or postcode input screen, where you can select the desired city by entering a few letters of its name or some digits of its postcode, then select from the list of results automatically given by the program if the matching items can be displayed on one page, or displayed on more pages if you tap Done after entering some letters.

Note: Only available letters are active on the keyboard when entering the first word of the searched settlement name. All other letters are inactive and gray.

You can accomplish this by using an alphabetic input screen (either an ABC- or a QWERTY-type). You only need to enter the first few letters, as the program only searches among the locations that exist in the given state or country. If the name of the settlement is of more than one word, the searched pattern can be any or the combination of those. You can search for multiple partial words by inserting space characters in the pattern. For example Bad Sauerbrunn in Germany will be found if you enter ‘Ba S’ or even ‘Sa B’.

You do not need to enter accents when searching for a destination. Type only the base letters (the letter most similar to the accented one) and AVIC-S2 will search for all their combinations in the database (e.g. for the French town 'Déléage' you only need to type 'Deleage', and the rest is done by the program).

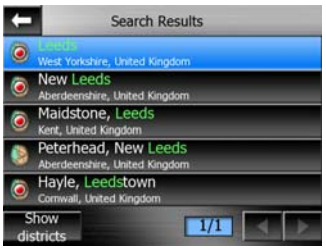
As you start typing, AVIC-S2 will calculate the number of locations matching your pattern(s). This number is shown at the right end of the input line. If all the matching city names can fit on one screen, the sound played when hitting the key will be different, and AVIC-S2 will show you all the results in a list. You can select the one you are looking for by tapping the appropriate list item.

Note: When more than 300 matching items (a list of more than 60 pages) exist for the entered pattern(s), AVIC-S2 stops searching, and displays '>300' at the right end of the input line. Enter more letters to narrow the list.

Note: When the name of the location contains a character that is not available on the keyboard (e.g. apostrophe or dash), AVIC-S2 considers it a space that splits the word.

Tip: If you have finished entering the street name and the matching names are still on more than one page, just tap Done, and select your desired settlement from the list. Turn the pages with the arrow buttons in the bottom right corner.

Tip: In case you are looking for a city name that has more than one word, you can reduce the list of matches faster if you enter a few letters from each word.



Note: If any of the locations listed has named suburbs or numbered districts that also appear separately in the map, a Show districts button will appear in the bottom left corner. Tap this button to list the suburbs together with the main settlements.

Once you have selected the city, you can continue by entering the street name as described here: Page 74.

Changing the country

If your destination is in another country, tap the Change Country button in the top right corner of the state selection screen, or the city selection screen, and select the country from the list.

6.2.1.2 Selecting a street or the centre of the settlement

Once the location is selected, you can continue by specifying the street you are looking for.

Note: As for the location input, only available letters are active when entering the first word of the street name. All other letters are inactive and gray.

Selecting the centre of the location

If you wish to navigate to the location displayed in the top centre of the screen, just tap Done before entering any letters. The search result will be the centre point of the city (where its name is displayed on the map).

Selecting a street

If you are looking for an address or an intersection within the selected location (shown at the top of the page), you need to first enter the street name you are looking for.

Tip: If you are looking for an intersection, choose the street, that has the less common street name first. This way you need to enter fewer letters to get the list of results. You may also choose the shorter of the two streets first. This way it will be faster to choose the second one from the list of crossing streets after the first street has been selected.

Tip: Should the name of the street be a prefix for several other street names, just enter the whole name, press Done, and the exact match will be the first in the list. This way you can easily find even very short street names.

As soon as you select a street, you are automatically taken to the House Number Input screen (Page 75).

Selecting a house number from several streets

If you are uncertain which of the result streets contain the house number you are looking for, tap Search In All, and proceed to the House Number Input screen without selecting the street first. Enter the house number, tap Done, and a list appears with only those streets, where the given number exists. To complete the search, pick the appropriate address from the list.

6.2.1.3 Selecting a house number or the midpoint of the street

Once the country, the city and the street name are selected, you are asked to give the house number using the numeric keypad. The range of available house numbers for the chosen street is shown in the input field before you begin entering the figures.

Enter the number, tap Done, and AVIC-S2 will show you the selected location on the map (or will start navigating immediately if you have selected Destination at the Main menu).

Tip: If you do not know the house number, just press Done, and the midpoint of the street will be used as the selected location.

6.2.1.4 How to select an intersection instead of a house number

If you do not know the house number or it is easier to pinpoint the location with an intersection, press the Find intersection button in the top right corner and select the desired street name from the list of available intersections of the previously selected street (displayed in the top centre of the screen). The crossing of the two streets will be the selected point.

6.2.2 Find in History

If you have used Find before, saved map points as POIs, or picked and used points of the map before, they all appear in the History list.

The most recently used locations are always at the beginning of the list.

Pick any of the recent locations as your destination. The Next and Previous buttons let you browse through the complete list to find your preferred location.

6.2.3 Find Coordinates

AVIC-S2 also lets you enter your destination by map coordinates. The coordinates need to be in latitude/longitude format and, based on the WGS84 earth model (the one used by most GPS devices).

When you enter this page, the coordinates of the current GPS position (or the selected map point, the Cursor, if Lock-to-Position is inactive) are shown at the top of the display.

The coordinates are always shown in the format configured in Advanced settings Display options (Page 65), but you can enter the coordinates in any of the three formats. You can even enter the latitude and longitude in different formats.

Entering a latitude/longitude pair is easy. The left field contains the latitude. It starts with an 'N' (North) or 'S' (South) letter. This tells AVIC-S2 whether the point is in the Northern or the Southern hemisphere. Use the N/S button to change the hemisphere. Enter numbers for the latitude. Use the decimal point if the degrees, minutes or seconds are not integers. Use the ° / ' / " button (the label depends on the current cursor position inside the latitude) to start entering minutes after degrees or seconds after minutes.

When finished, tap the longitude on the right, and enter it as you did latitude. This time the hemisphere-changing button E/W tells AVIC-S2 whether the point is located East or West from the meridian crossing Greenwich, UK.

Once you have entered both numbers, press Done to make the selection.

Tip: The quickest way to tell the coordinates of a point is to select it by tapping on the map or by using Destination, and then come to this page and read the coordinates.

Tip: If you need to reformat coordinates to the format selected in AVIC-S2 (Page 65), enter the coordinates in the format you have, press Done to show it in the map, then come back here to see the same location in the chosen coordinate display format.

6.2.4 Find a POI

You can select your destination from the thousands of POIs included with AVIC-S2 or from the ones you have previously created. This screen helps you find the one you are looking for. POI items are categorised to let you locate them more easily. On this screen you can see the first page of the top level POI categories. There are three levels altogether.

The search will be carried out around a certain reference point. Always look at the current reference point shown in the blue field above the POI category buttons and confirm that it matches what you want. To change the reference, tap the Change ref. button in the top right corner.

Once you tap the Change ref. button, you are presented with these choices:

- **Address:** you can specify an address to be searched around, or a location to search in. The centre of this location will be used as the reference point.
- **History:** the reference for the search can be selected from the History list.
- **Coordinates:** you can specify a latitude/longitude pair to be the centre of the search.
- **GPS Position:** the search will be carried out around the current location given by the GPS if it is available. If no GPS position is available, the last known GPS position (grey arrow on the map) will be used.

- **Cursor:** the search will be carried out around the previously selected map point.
- **Destination:** the search will be carried out around the destination of your current route.

The current selection is always shown in the green field at the top of the page.

Note: The default reference point for POI search is the current GPS position, if it is available, or the Cursor, when there is no reliable GPS position.

Once you have set the reference point, you have the following options on the Find POI screen:

- **Find in POI subgroups:** highlight one of the POI groups by tapping or using the direction buttons, then press Enter or tap it again to see the list of subgroups. Using the same action you can move deeper into subgroups.
- **Search by name among the POIs of that level:** tapping the Search button will bring up a text input screen to let you narrow the list of POIs. If you tap Search in the list of subgroups, you will only search in the group you are already in.
- **See all POIs of the current group in a list:** tapping the All button opens the list of all points in the group or subgroup you are already in. Use the Next and Previous buttons to browse through the list.

Search results are displayed by distance from the given reference point (nearest first).

Note: For POI items that you have created, you can also see the results in alphabetical order. Push the button with the label ABC that appears between Search and the page number.

Once the desired POI item is selected, AVIC-S2 will show its details.

Tapping OK will return to the map with the selected POI in the centre.

Tapping the arrow in the top left corner returns to the search results.

Tip: If you want to find the nearest POIs, or if you are close to one of them but do not know exactly where it is or what its name is, tap the All button on the very first screen of POI search, and get a list of the nearest POIs. Use the Next button in the bottom right corner to turn the page if you cannot see the desired place on the first page of the list.

6.2.5 Find one of the Favourites (Home/Office)

If you have already set up your favourite destinations in Advanced settings (Page 67), you can select either of them by simply tapping the button with the name on it.

Note: If you try to access a favourite destination that you have not yet set up, AVIC-S2 will lead you to the setup page.

7 Troubleshooting guide

If you have problems operating your navigation system, refer to this section. The most common problems are listed below, along with likely causes and solutions. While this list is not comprehensive, it should answer your most common problems. If a solution to your problem cannot be found here, contact your dealer of the nearest authorized Pioneer service facility.

I cannot find the red arrow that would show my location. Navigation does not start.

Check the GPS status icon on any of the map screens (Page 30) or on the GPS Data screen (Page 23). If the unit getting poor GPS reception, move the unit to a better reception area, or continue driving until reception improves. Make sure that the area of the unit of the GPS antenna is clear.

The GPS is sending valid position data, yet I cannot see the red arrow that would show my position.

You should see a large semi-transparent ‘Back’ icon (Page 28) on the screen. Tap this to re-enable the Lock-to-Position feature that moves the map back to your actual location.

The red arrow shows my location, but I cannot see the route (green line), and no voice instructions are announced.

It is likely that you have no active route. Check the upper left corner of the Cockpit screen (Page 27) if you can see the indication for the next turn or not. If this field is blank, you have no route planned, so you need to create one first. It is a common mistake to find a destination, show it on the map, but forget to tap the ‘Route To’ button in the Cursor menu (Page 32) to create the route.

I cannot see the Back button on the screen, yet the map is not rotated during driving.

Look for a small, red ‘N’ letter on the compass icon (Page 29) or an aeroplane icon instead of it. It is likely that you had initiated the North-up map orientation or the Overview mode unintentionally. Tap this icon to revert to Track-up mode with automatic map rotation.

Creating a multi-point route I have tapped the ‘Route To’ button once for each destination but only the last one appears in the list, all previous points have disappeared.

The ‘Route To’ button is for starting a new route only. For a single route you tap this when the destination is selected. Multi-point routes can be created after you have

established a single route. Add points to the single route by using the ‘Add Via’ and ‘Continue’ buttons. Applying ‘Route To’ again will delete the whole route.

8 Glossary

The Glossary will provide you with explanations for technical terms used throughout this manual.

2D/3D GPS reception: The GPS receiver uses satellite signals to calculate your current position. Depending on the current positions of the satellites in the sky, and the objects in your environment, the signal that your GPS device receives may be weaker or stronger. Your GPS needs strong signal from at least four satellites to give a three dimensional position including elevation. If fewer satellites are available, it may still be possible to calculate the position but the accuracy will be lower and the GPS device will not calculate elevation. This is called 2D reception. AVIC-S2 shows the quality of reception on the GPS Data screen (Page 24) and both map screens (Page 30). Note that 2D and 3D GPS receptions have nothing to do with the 2D and 3D display modes of the map. That is a way of representing the map on the screen independently from the GPS reception.

Accuracy: The difference between your real position and the one given by the GPS device is affected by several different factors. The GPS is capable of providing a guess of its current error based on the number of satellites it can receive a signal from, and their position in the sky. This information is shown in AVIC-S2 on the GPS Data screen (Page 23). Use it as a general reference only. Note that several other factors affect the real accuracy, some of which the GPS is incapable of estimating (e.g. signal delay in the ionosphere, reflecting objects near the GPS device, etc.).

Active route: A route is an itinerary planned to reach your chosen destinations. A route is active when it is used for navigation. AVIC-S2 has only one route at a time, and it is always active until you delete it, reach the final destination or exit AVIC-S2. When there is more than one destination to reach, the route is cut into different legs (from one via point to another). Only one of these legs can be active at one particular time. The rest of them are unused and shown in a different colour on the map.

Automatic route planning (Autorouting): You only need to set up your destination, and based on its map, the software will automatically figure out which roads you need to take, and the turns you need to make to get there. AVIC-S2 will let you select multiple destinations, and customise some important routing parameters (Page 62).

Automatic route recalculation: AVIC-S2 recalculates your route if you deviate from it. When you miss a turn or avoid a roadblock, AVIC-S2 waits for a few seconds to be sure you do not follow the route any more, then recalculates the route based upon your new position and heading.

Automatic day/night colours: Based on the time and position given by the GPS device, AVIC-S2 is able to calculate when the sun rises and sets at your current location on this particular day. Using that information AVIC-S2 can change between the day and the night colour schemes a few minutes before sunrise and a few minutes after sunset (Page 61). As additional information to help your orientation, the sun is shown in the sky when you display the map in 3D mode with a low viewing angle, and the sun is near the horizon.

Elevation: When the GPS receiver can see at least four GPS satellites, it can determine its current position in three dimensions. In this case the elevation is calculated together with the latitude/longitude position.

ETA (Estimated Time of Arrival): A frequently used expression in navigation. It represents the time when you will reach your destination based upon calculations using the remaining part of the route and available information of the roads used. This estimation can only be used as a general reference. It will not be able to take into account your future speed or the traffic delays. In AVIC-S2 this value is shown as 'Estimated Arrival' on the Route Information screen (Page 36).

ETE (Estimated Time En route): Another frequently used expression in navigation. It represents the time needed to reach your destination based upon calculations using the remaining part of the route and available information of the roads used. This estimation can be used only as a general reference. It will not be able to take into account your future speed or the traffic delays. In AVIC-S2 this value is shown as 'Time left' on the Route Information screen (Page 36).

GPS: Abbreviation of Global Positioning System. This system is operated by the DoD (the Department of Defense of the Unites States Government). It consists of 24 satellites orbiting Earth, and several ground stations to keep the satellites in sync. To calculate your position, your GPS device uses the signals received from those GPS satellites that are currently visible at your location. You can use this service free of charge.

Lock-on-Road: This function of AVIC-S2 will always keep the red arrow representing your actual position on the nearest road. This automatic feature is necessary as the position given by the GPS receiver is not perfectly accurate. Under normal circumstances Lock-on-Road will eliminate the occasional position error. If the corridor of error is too large, your position may be shown over a different street on the map. Normally Lock-on-Road is always active in AVIC-S2 when GPS position is available. See also in Page 18.

Lock-to-Position: When GPS position is available, AVIC-S2 will automatically keep moving the map to always have the red arrow, representing your actual position, on the screen. You can move the map to lose this position. Then the Back button appears on the screen. Tapping it will re-enable Lock-to-Position. See also Page 28.

Map Orientation: AVIC-S2 is able to rotate the map for your convenience. If you choose Heading up mode, the map will be rotated to look in the direction of your heading. Selecting North-up, the map remains oriented to have North toward the top. Use the left and right hardware buttons to turn your map in the direction you wish. This will immediately turn off the automatic rotation. A small compass in the top right

section of the map screens (Page 29) will always show the current direction of the map. Map orientation should not be mixed up with Screen orientation.

North-up: A kind of map orientation having the map rotated to have North toward the top of the screen. See also Heading up and Map Orientation.

POI: Points Of Interest, exact map locations of important points saved in a database together with their name, category and subcategories (e.g. Service/Fuel/Autogas), address, phone and other important information. Use the versatile search system in AVIC-S2 to find the appropriate POI near you, your destination or any other given location on the map (Page 77). You can also have your favourite places saved as 'My POI' in AVIC-S2.

Track log: In AVIC-S2 you have the possibility to record your journeys using the position data your GPS provides in every second or every few seconds (depending on your GPS settings). When you start the recording, position data are saved in the database until you stop recording it. This set of sequential GPS positions is called track log. Each set of consecutive positions has a name (originally it is the time of recording but you can change it to any name you like) and a colour in which it can be displayed on the map. See also Page 43.

Heading up: A kind of map orientation when the map is rotated to look always in the direction of your heading. See also North-up and Map Orientation.

Via point: Routes in AVIC-S2 can have several (as many as you want) different destinations to reach in a specific order. All these points except the final destination are called via points, as the route goes 'via' (through) them. The destinations can be seen in the Route Information screen on the Route line (Page 35), and each via point is announced by the voice instructions as you approach and when you reach it. Should your via point serve as a stopover, navigation continues automatically as you depart. Navigation will resume even if you turn off and on your device or restart the program.

Zoom In and Out: The Zoom function is used to change the scale of the map. Use Zoom In to scale down the map to see less of it but in more detail, and use Zoom Out to scale the map up to have a broader view of that part of the map with fewer details. See also Page 16 and Page 27.